PitchBook

2021 US Venture Capital Outlook

Forecasting the primary trends that will shape the VC industry in 2021

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Introduction

As we formulate our outlooks for the 2021 VC market, the requisite platitudes about uncertainty ring truer than usual. The COVID-19 pandemic is the key variable, with mixed news heading into 2021; infection levels have risen to new highs, but a handful of vaccines show promise. As a light is beginning to appear at the end of the tunnel, one key question remains: How long it will take to ramp up production and distribute the vaccine? Aside from the virus, with a new administration in the US comes numerous policy proposals. Taxes, immigration, trade policy, and an array of other issues that directly affect both VC investors and companies will all be on the table in 2021.

In addition to macro conditions, the VC industry itself is undergoing a period of transformation and innovation. As the traditional VC model—with heavy concentration in particular demographics and geographies—has been questioned in recent years, we have seen a concerted effort to look beyond traditional VC hubs and develop new ways to capitalize startups. This change was already underway and has only been accelerated by the pandemic, especially as VCs have learned to deploy capital without many of the prerequisites of the past (for example, in-person meetings).

Another sea change in VC centers on the types of securities and investment vehicles used by companies and investors. The popularity of non-dilutive financing options surged amid the pandemic, as many startups have avoided raising equity in a challenging market. In the earliest stages, regulatory changes on crowdfunding and the adoption of rolling funds by prominent angels have opened new sources of capital. At the top end of the market, established VC firms continue to grow their clout through large, commingled vehicles, with many raising multiple funds concurrently to pursue strategies across industries and the VC lifecycle. With their increased size and the tendency of companies to stay private longer, these brand-name VCs are not only funding massive private rounds but also adapting their strategies to meet their companies' needs as they transition to public markets via special purpose acquisition companies (SPACs). Nontraditional investors have also evolved their strategies in the VC space and now represent a main driver in the market.

We view these changes as a new positive for the VC industry and necessary to foster continued expansion. While macro uncertainty remains high, we believe the outlook is clearer for the VC industry than in many other areas. First, the two main sectors for VC investment—tech and healthcare—have only grown more important during the pandemic. Second, VC firms have ample dry powder available to invest in these companies, and nontraditional investors are proving a staying force as well. While high levels of dry powder may suggest headwinds for fundraising, with interest rates at historic lows and growth at a premium, institutional investors have retained their appetite for VC. In fact, many of these investors remain underallocated to the asset class. Lastly, we see continued opportunity for innovation as investors, companies, and regulators have seemingly embraced the cause of increasing access to capital for startups.

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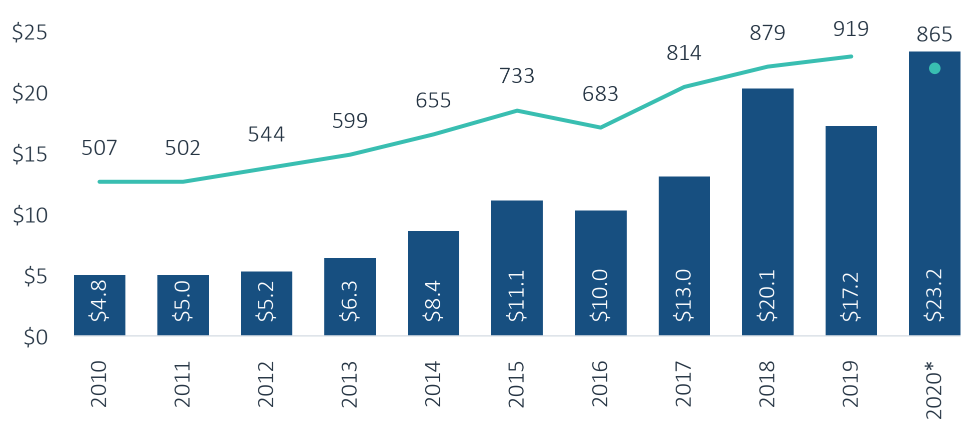
Prediction: Biotech & pharma VC deal activity will likely exceed $20 billion for the second consecutive year

> ***Rationale:*** The resumption of clinical trials and elective procedures within hospital systems around the world has resuscitated drug development pipelines for several VC-backed biotechs, many of which will return to their private backers for additional capital to fund trials and build out R&D programs. Furthermore, fundraising by specialist VCs has been robust as top life sciences investors look to fund the next generation of therapeutics. Ever-growing capital commitments from LPs looking to break into the biopharma space, coupled with the recycling of profits and liquidity from 2020's IPO market, will likely fuel dealmaking in 2021 to near-record levels.
>
> ***Caveat:*** It remains to be seen how the current trajectory of infection rates will affect the economy. With positive data coming from Pfizer and Moderna's Phase 3 trials, a resolution to the pandemic may lead to a pullback in capital as institutional investors diversify their holdings in sectors likely to rebound with widespread vaccine distribution. This would likely undercut the frothy valuations and outsized financings seen by late-stage biotech & pharma companies from crossover investors. The prevalence of SPACs and other vehicles could also draw crossover capital away from VC-backed biotech & pharma companies. Furthermore, while unlikely, potential regulatory changes to drug reimbursement schemes, amendments to the Affordable Care Act (ACA), and the resumption of prescription drug pricing discussions could also provide significant headwinds for growth investors in the biotech & pharma space.

The healthcare sector thrived in 2020 in terms of VC investment, technological breakthroughs, and exits, particularly as focus on vaccine development and treatment for COVID-19 boosted the biotech & pharma industry. Despite overall market volatility, an increasing number of biotech companies have been accessing the public markets as institutional investors

VC biotech & pharma deal activity ($B)

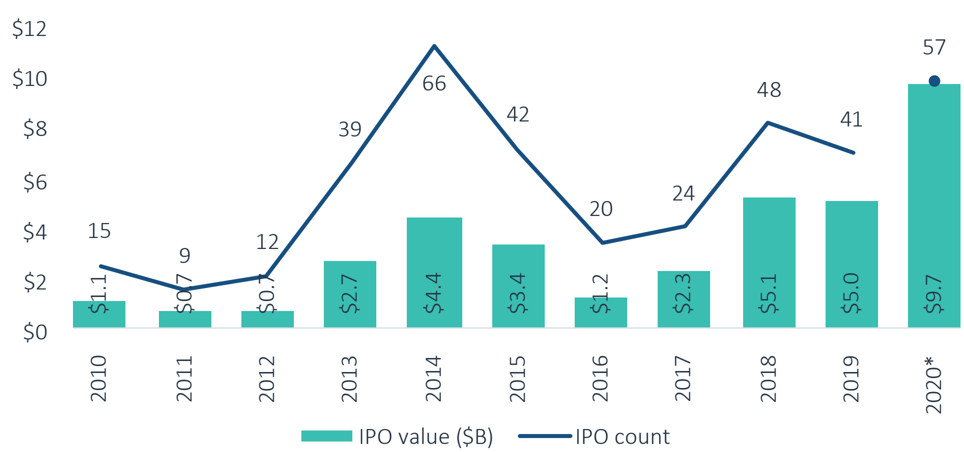


Source: PitchBook | **Geography:** US
*As of November 18, 2020

found few other attractive options, pouring record levels of capital into biotech. The biotech & pharma industry has been a shining light for markets in 2020. While COVID-19 patients overloaded hospital systems and shelter-in-place mandates decimated office occupancy rates, many VC-backed biotech & pharma companies still forged ahead and made significant progress in the year. Indeed, biotech & pharma startups have raised $23.2 billion in VC financing across 865 deals in 2020 as of November 18, shattering the deal value record set in 2018.

Public market sentiment for the biopharma industry remains strong as well. Both the iShares Nasdaq Biotechnology ETF (^IBB) and the SPDR S&P Biotech ETF (^XBI) are up 16.7% and 34.0% YTD, respectively, compared with the S&P 500 Index's 10.7% increase (as of November 18, 2020). Furthermore, generalist investors are continuing their foray into biotech, hoping to capitalize on the only industry with the tools to develop vaccines and therapeutics to resolve the pandemic. Indeed, the biotech & pharma IPO market has ballooned to record levels, with $9.7 billion raised across 57 IPO transactions in 2020 YTD, smashing the previous yearly record of $5.1 billion raised in 2018. On the M&A front, 2020 was also a standout year with prominent deals such as AbbVie's (NYSE: ABBV) acquisition of Allergan for $63.0 billion, Gilead Sciences' (NASDAQ: GILD) acquisition of Immunomedics for $21.0 billion, and Bristol-Myers Squibb's (NYSE: BMY) acquisition of MyoKardia for $13.1 billion. This trifecta of outperformance, coupled with the Federal Reserve pumping liquidity into the market, has buoyed the private markets with trickle-down capital.

Capital raised ($B) by biotech & pharma IPOs



Source: PitchBook | **Geography:** US
*As of November 18, 2020

While the pandemic's inevitable resolution will likely dampen generalist interest slightly, fundraising by specialist investors will ensure that 2021 VC deal activity remains robust. Notable funds raised by biotech investors just this past year include ARCH Venture Partners' two funds for a combined $1.46 billion, Flagship Pioneering's $1.1 billion Fund VII, Deerfield's Healthcare Innovations $840.0 million Fund II, and Andreessen Horowitz's $750.0 million Bio Fund III. The abundance of unmet medical needs ensures that this capital will likely be allocated regardless of major shifts in macroeconomic factors. Similarly, we believe capital flowing from nontraditional sources such as corporate VCs and crossover investors (for example, mutual funds, hedge funds, alternative asset managers, and more) will also remain strong and continue to boost biotech & pharma dealmaking as drug technologies continue to mature and more late-stage startups move farther along the drug development cycle. The robust biotech & pharma IPO market has attracted nontraditional VC investors to the space, and we see public market investors participating in VC deals to boost eventual returns from an IPO. Further, increased VC participation from these nontraditional investors over the last few years has allowed VC to become ingrained as a core piece of their overall investment strategy.

The pandemic will undoubtedly leave lasting wounds on many industries. However, we see biotech & pharma as a defensive industry and one of the first to bounce back. While tech companies grapple with employee preferences to work from home, the ability to work remotely is nearly impossible for scientists and technicians in biotech & pharma R&D functions, allowing employers to maintain peak productivity and resume "business as normal" operations sooner than other industries. This drives medical breakthroughs and novel scientific findings, which tend to serve as the impetus for follow-on VC financings. Furthermore, the COVID-19 pandemic and increasing geopolitical tensions have exacerbated disruptions to the drug development supply chain, which we anticipate will spur companies to raise additional capital to develop domestic manufacturing facilities or build partnerships with local, more costly contract manufacturing organizations (CMOs). Ultimately, many tailwinds are supporting the biotech & pharma industry for the foreseeable future and we anticipate 2021 will post another robust year for dealmaking.

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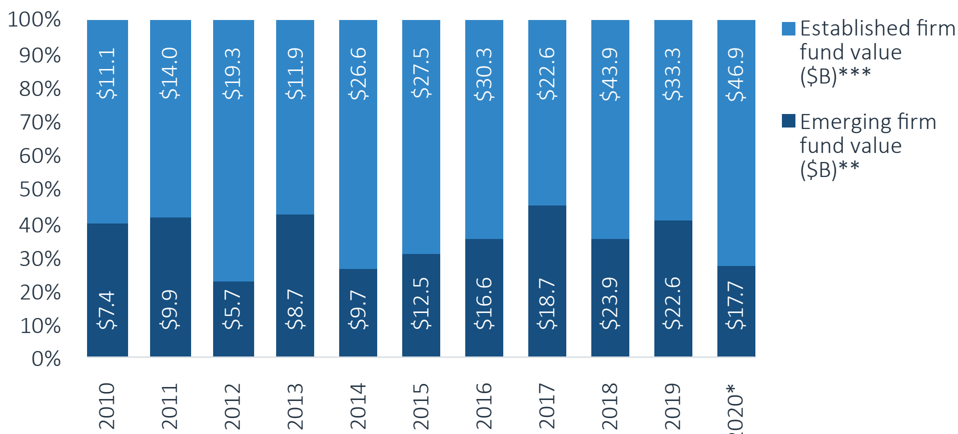
Prediction: Established managers will increase proportion of overall VC fundraising to above 75% for the first time since 2012

> ***Rationale:*** US VC fundraising has been extremely robust in 2020, with the yearly total already surpassing 2018's record $67.8 billion. Yet, 2020 will likely notch the lowest number of funds raised since 2015. This, coupled with a shockingly low number of first-time funds, signals to us that bifurcation within fundraising has solidified in 2020. Established managers, which we define as a manager with at least four funds closed, have found success raising outsized follow-on vehicles, while emerging managers have struggled to raise smaller funds. We expect this discrepancy to widen further in 2021 as LPs recycle ongoing distributions generated by the strong exits from these established managers into follow-on funds.
>
> ***Caveat:*** Emerging managers had a lackluster year of fundraising in 2020 as establishing relationships with new LPs proved challenging amid stay-at-home orders. Those funds that were able to raise did so at relatively larger median and average sizes than in previous years, a nod to the quality teams put together at these firms. With optimism brewing around COVID-19 vaccine efforts, these first-time and emerging managers may return to normal operations sooner rather than later, and as many institutional investors may remain underallocated to VC, we could see a bounce back in fundraising from less mature VC firms in 2021.

The pandemic proved to be a significant logistical headwind for many VCs. Yet, many fund managers with strong LP relationships and solid past fund performance still raised follow-on flagship funds without much difficulty. 2020 has been an extremely strong year in terms of funds raised as VCs hauled in a total of $69.1 billion across 286 funds. This massive flow of capital is likely to be spread across the lowest number of funds since 2015,

Fundraising by established and emerging firms as proportion of total fundraising



Source: PitchBook | **Geography:** US
*As of November 23, 2020
**Emerging firms are defined as firms that have launched fewer than 4 funds
***Established firms are defined as firms that have opened 4 or more funds

meaning that the majority of LP capital went to outsized vehicles. In fact, the top 10 funds this year as of November 18, 2020 were over $1 billion and made up 38.7% of total capital raised. This continues the trend seen over the last decade, with steadily advancing deal sizes and the normalization of VC mega-funds (those $500 million and above). The benefits of this change have logically accrued mainly to the established and larger VC firms that have a tended to raise ever-larger flagship vehicles that can invest in a diverse set of stages and sectors.

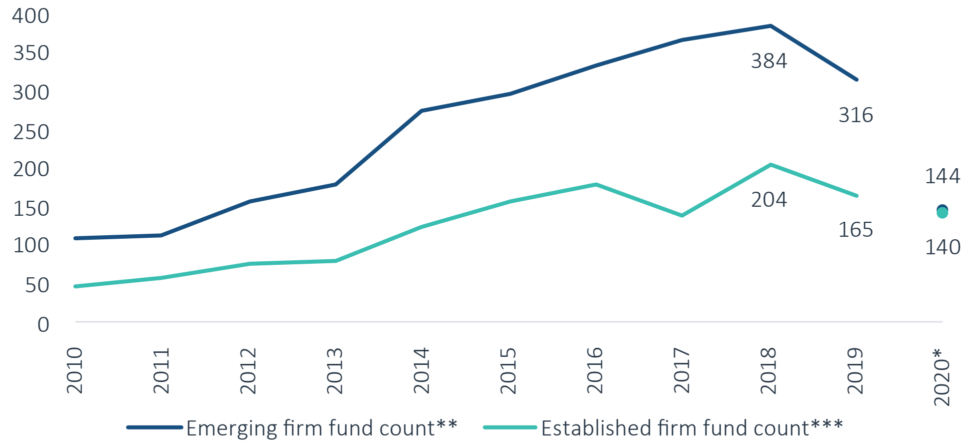
On the flip side, we have seen increasing fragmentation in capital formation at the earliest stages. The popularity of rolling funds, growth and opportunity funds, special purpose vehicles (SPVs), syndicates, special purpose acquisition companies (SPACs), and other non-flagship financing structures has continued to rise among VCs. Many angel investors and fledging firms are adopting these structures to establish a track record with the hopes of eventually raising an institutional fund. Additionally, we've seen emerging managers supplement their commingled flagship funds with ancillary fundraises of various investment vehicles as a tactic to expand investment flexibility and fully participate in follow-on rounds. The elements of this fragmented fundraising system will likely increase in adoption as they allow for more targeted fund strategies and potentially enable GPs to make larger or riskier bets while preserving the reported returns of the flagship fund.

The SEC has also been relatively sanguine toward expanding capital formation and investment opportunities by improving access to private market capital—namely, through increases in the offering limits of various securities and crowdfunding regulations.[1] The expansion of the definition of "accredited investor" by the SEC in August 2020,[2] along the Volcker Rule revision in October 2020 that brought in a new category of deep-pocketed LPs, have both been major tailwinds for GPs embracing non-flagship funds. With all of these changes, we expect that innovations surrounding fundraising, particularly for non-flagship funds, will likely gain momentum going into 2021 for both established and emerging mangers. We anticipate much of this activity to stack on the earlier end of the VC cycle and to involve smaller funds, further supporting our outlook that established managers will gain share in traditional commingled fundraises.

As of November 23, 72.6% of the capital raised in 2020 has been invested into established managers. During economic headwinds, this makes sense. In times of volatility and uncertainty, investors—particularly institutional LPs—tend to place capital in trusted areas. In this case, LPs are more comfortable investing in managers with which they have an established relationship, and that have a proven track record of success. Some LPs even refuse to invest in first-time funds, instead waiting until the manager comes back to raise a second, or even third fund. So far in 2020, established manager funds closed this year nearly equal the number of emerging

1: "Statement at Open Meeting on Facilitating Capital Formation and Expanding Investment Opportunities by Improving Access to Capital in Private Markets," US Securities and Exchange Commission, Hester M. Peirce, November 2, 2020.
2: "SEC Modernizes the Accredited Investor Definition," US Securities and Exchange Commission, August 26, 2020.

Number of funds raised by established and emerging firms



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manager vehicles, compared to 2019 when emerging managers raised 151 more funds than their more established counterparts.

First-time funds have had a difficult time in 2020. Through the end of Q3, just 30 first-time managers closed a fund, much fewer than the average of 95 closed each year since 2017. In fact, if the three-quarter pace holds in Q4, 2020 will post the lowest number of first-time funds closed since 2013. This serves as a stark reminder of the struggles emerging managers have faced in 2020, a record year for VC fundraising overall. LPs likely to invest in emerging managers, such as family offices, are opportunistic in nature, and 2020 has afforded many liquid opportunities for investment, which could be cause for a pullback from venture investment in 2020.

With a vaccine and the potential to return to pre-COVID-19 normalcy, the surge in VC fundraising should receive a tailwind. Fund sizes raised by all managers continue to grow. The spread between top and bottom-quartile fund size has risen to $265.0 million in 2020, as of Q3—in 2019, that spread covered just $139.0 million. Although emerging manager funds have also grown larger when compared historically, the top-quartile fund size is still much smaller than what established managers can obtain. Just one of the $1 billion+ funds raised in 2020 has been an emerging manager—Amazon's Climate Pledge Fund isn't included in this calculation as it is a corporate vehicle—and this is unlikely to change in the short term as barriers to raising for emerging managers remain in place.

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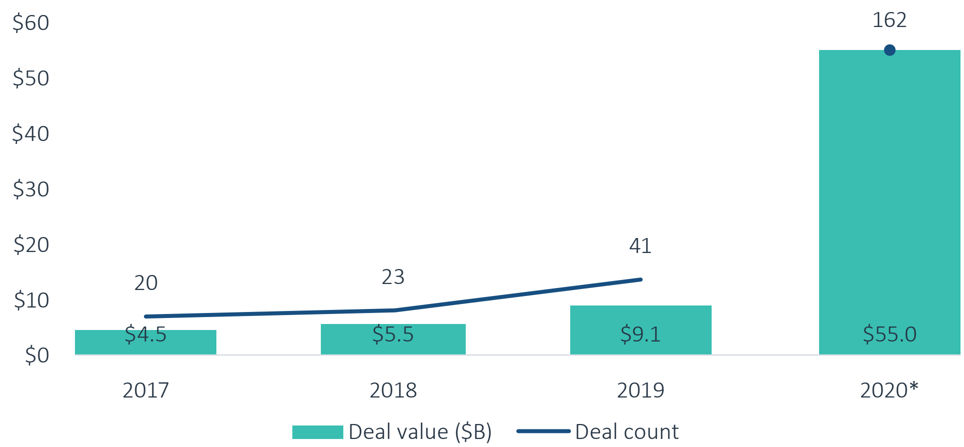
Outlook: Number of SPAC IPOs will decline YoY in 2021, and fewer than 30% of 2020 SPACs will close an acquisition

> ***Rationale:*** The deluge of SPAC IPOs in 2020 saw a near quadrupling of IPO count in the space, driven by a perceived need for certain companies to establish a clearer path to the public market. For many investors, the establishment of a SPAC program in the current environment was likely driven more by opportunism than a measured inception of an evergreen strategy. It's likely that activity for new SPAC issuance on a count basis will remain above the average of 28 SPAC IPOs from 2017 to 2019, but we anticipate that it will fall below the elevated total of 162 so far in 2020. We also anticipate that fewer than 30% of SPACs raised in 2020 will execute a reverse merger by the end of 2021, as the competition between SPACs will make this process more difficult.
>
> ***Caveat:*** We may see a true sea change in the valuation landscape where public valuations are more favorable than private market valuations, which would drive many private investors to begin SPAC programs to help unlock value by transitioning companies to the public markets. This shift would catalyze VC and PE firms' decisions to offer "full stack" financing products, enabling them to invest in private companies and take them public via a SPAC, thereby expanding potential avenues to returns.

SPAC IPOs in 2020 have seen a massive uptick in volume, with $55.0 billion raised by 162 new SPACs listed so far this year, representing an increase of 501.8% on capital raised and 295.1% in count relative to 2019. What started as pandemic uncertainty bringing about a rebirth of an uncommon way for investors to transition private companies to the public markets has now evolved into what is essentially a momentum trade. The entrance of a handful of large and respected investors as SPAC sponsors—such as Bill Ackman's Pershing Square, Dragoneer, Lux Capital, Ribbit Capital, and others—further contributed to this momentum, lent more legitimacy to the market, and encouraged even more new SPAC vehicles. This led to the first wave of new SPAC IPOs in early 2020, which enticed others to pursue this strategy given the huge sums of capital raised with what seemed like relatively little effort. At this point, SPACs have become a mainstream topic of conversation, and enough new players have completed IPOs to signal significant potential to raise a SPAC to any individual or fund with significant dealmaking or operating experience.

Just eight months into this new SPAC phenomenon, we've already seen signs of oversaturation in the market, with a recent uptick in the number of downsized SPAC IPOs. This marks a distinct shift from the near constant upsized offerings of earlier in 2020. Notable examples include new SPACs from Cerberus Capital Management, which downsized from $400.0 million to $250.0 million, along with some more experienced players such as Victory Park Capital's second SPAC. Most surprising was Gores Holding's cutting its sixth SPAC from $525.0 million to $300.0 million, despite being one of the most active sponsors in the space. Over the next 12 months, we expect to see more signs of overcrowding in the SPAC markets, including a YoY decline in SPAC IPO volume. We also predict that fewer than 30% of SPACs will close a reverse merger by the end of 2021. While the unprecedented nature of this year makes it difficult to make predictions for SPACs based on historical data, we've only tracked 38 SPAC acquisitions larger than $100 million since 2018, and the average SPAC IPO has been over $290 million each year from 2018 to 2020, with 2020's average topping $400 million. With a total of 64 SPAC IPOs in 2018 and 2019, 38 acquisitions likely represent a hit rate of 59% with two full years for 2018 SPACs. With the increased competition for quality acquisitions stemming from the swell in new SPACs and other private investors, we expect this rate to drop significantly going into 2021.

SPAC IPO activity by year



Source: PitchBook | **Geography:** US
*As of November 18, 2020

Since there are a limited number of ideal target companies for SPACs given the trade-offs (such as increased dilution when accepting a SPAC acquisition), we believe the surge in new SPACs will lead to an extremely competitive dealmaking landscape. Essentially, the supply of companies has remained steady in 2020, but spiking demand from SPACs and a 24-month time crunch to consummate the reverse mergers make for a challenging environment. Furthermore, the SPAC dealmaking landscape directly competes with a growing number of other investors. Specifically, SPACs compete against the late-stage VC and PE growth markets, which have only become more crowded over the past few years. For example, dry powder in VC funds remains at a record $152.7 billion, and nontraditional investors likely have an equal or larger amount to dedicate to VC.

In the past, we've compared a SPAC to a PE fund raised for an individual growth equity deal. Given this analogy, SPACs are entering the territory of PE growth investors, potentially some buyout firms, as well as the ever-growing late-stage VC market that counts many mutual funds, hedge funds, and corporations as key investors. All this competition, including among SPACs themselves, will likely inflate valuation multiples for certain private companies, which in turn would lead to depressed returns for the SPAC investors. For instance, there have been several reports of multiple SPACs approaching large private companies only to experience a rebuttal, as was the case with Airbnb and Affirm, both of which chose to pursue a traditional IPO.

However, some factors may allow for sustained growth in SPAC activity. For the last decade or so, the received wisdom was that companies were better off staying private. However, with the increased popularity of SPACs, many of those same PE and VC investors are now touting the public option. One reason is a potential shift in the relationship between valuations in the public and private markets. The public markets have recovered quickly from the initial drop from the pandemic and continue to value revenue growth extremely highly given the low returns in many other asset classes. These revenue multiples are approaching levels that surpass or at least rival what we see in the private market; for instance, the median EV/Revenue multiple of the BVP Nasdaq Emerging Cloud Index sits at 17.6x as of this writing. Further, the top quartile and decile sit at 27.9x and 43.4x, illustrating the premium many of the fastest-growing or most efficient software companies can currently achieve in the public markets.

While we still see valuation growth in the private markets, many investors clearly see opportunities to unlock value for some startups by transitioning them to the public markets. If the current dynamics between the public and private market persist through 2021, more GPs could choose to raise a SPAC to take advantage of this shift. Further, we expect to see a shift in the alignment of interests of the SPAC sponsor and the public investors in the IPO—in particular, a reduction in the sponsor shares, or promote, requiring a larger initial capital investment from the sponsor to attain significant ownership of the SPAC. While some sponsors have doubled down by participating in a concurrent PIPE, the Pershing Square vehicle fully cut out the promote, and we see this becoming more common as SPAC sponsors invest some skin in the game to instill greater confidence in potential IPO investors.

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Outlook: More VC-backed exits over $1 billion will occur via direct listings rather than SPAC listings in 2021

> ***Rationale:*** In late 2020, the SEC approved NYSE direct listings to include a primary capital raise concurrent with the first trade. This inability to raise capital in a direct listing has been the main argument against more companies pursuing this pathway to the public markets. With that barrier on the path to removal and the continued success of completed transactions, we expect more companies planning to go public will take advantage of the benefits of a direct listing, especially larger technology startups.
>
> ***Caveat:*** There are a few factors that might still discourage startups from pursuing a direct listing. Adding primary shares in the first trade of a direct listing has not been tested by any companies since the four modern direct listings, starting with Spotify in 2018, didn't involve a capital raise. In theory, another large block of shares to sell could add downward pressure on the price, if the demand doesn't match what it would be for a traditional IPO. Further, the IPO window currently looks fairly open as we near the end of 2020, which could lead other startups to choose the more traditional route to public markets or a merger with a SPAC, which increased in popularity during 2020.

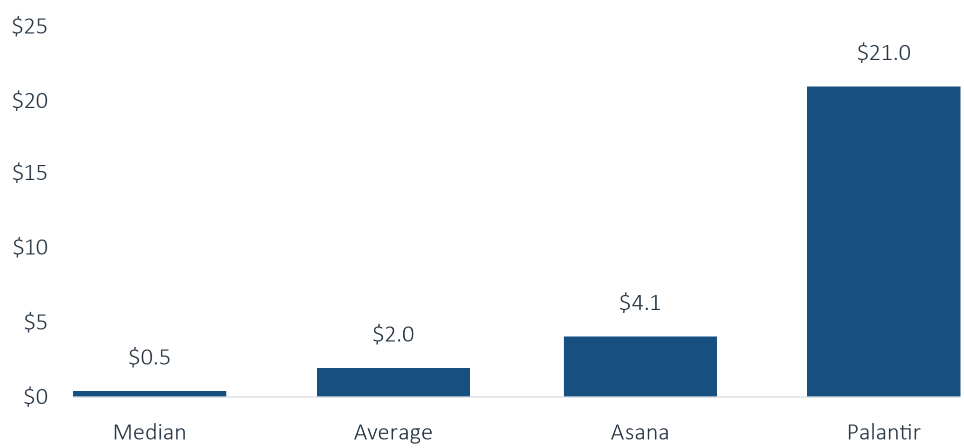
Last year, we predicted three total direct listings; it looks as though that figure will fall just short with two completed as of this writing. However, we remain optimistic about the number of VC-backed companies that will choose a direct listing, a prediction we've upheld from the moment Spotify announced its plan in early 2017. To summarize, a direct listing gives startups the ability to transition to the public markets with more transparency, less involvement from investment banks and, perhaps most importantly, a market-based price rather than a bank-determined price. With four major direct listings completed since 2018, many of the potential detriments of this pathway to the public markets have also been debunked. None of these listings experienced severe volatility or negative price pressure at the beginning of trading despite the lack of broad retail investor brand recognition and negative cash flows. In our view, a direct listing provides a simplified and straightforward option for companies transitioning to the public markets relative to a traditional IPO. On the other hand, the lack of a capital raise serves as the main detractor for this exit type.

The SEC recently ruled positively on an NYSE proposal to allow for concurrent primary shares to be sold in a direct listing, which would be a massive step to level the playing field between direct listings and traditional IPOs. Some argue against this decision; the most vocal dissent has come from The Council of Institutional Investors (CII), an advocacy group for asset managers, which filed a notice with the SEC that it would petition for a review of the plan by the SEC's commissioners, effectively pausing the implementation of this rule. The CII argues that if the NYSE allowed concurrent primary shares sales in direct listings, it could open the door for companies to circumvent protections around corporate governance and shareholder rights that the IPO process provides. Much of this concern revolves around a lawsuit involving Slack—which went public via a direct listing in 2019—and investors that alleges the company failed to disclose certain risks when it sold its shares to the public. Part of Slack's defense revolves around the different registration statuses of shares; some shares sold were covered by the registration document, but others were sold by Slack insiders and therefore not covered. Another point of contention was shareholder's inability to determine the amount of loss since there was no true offering price. The initial court upheld certain rights for Slack's shareholders under Section 11 of the Securities Act; however, the case is currently under an interlocutory appeal with the circuit court that will make a final judgement.

This legal decision will have a significant influence on the future volume of direct listings. Upholding shareholder rights at the same level as IPOs to prevent serious fraud maintains institutional confidence in the direct listing. However, we feel that the complaint from CII also implicitly stems from the potential threat to the preferential treatment of institutional investors in the traditional IPO process, when receiving an allocation can result in immediate and material returns. We expect a resolution in the Slack case to either side, as well as the SEC review, to maintain direct listings as an option for new, innovative, and growing businesses to reach the public markets. We believe the increased transparency and democratized liquidity serve to benefit both the company and investors.

We see direct listings as the most attractive option to transition to public markets for the largest VC-backed companies given that they are most likely to ensure the necessary liquidity to produce orderly trading. If the regulatory hurdles are dealt with early in 2021, we expect a record year for these deals, with the potential to surpass traditional IPOs of unicorns. Even if this rule change isn't implemented, direct listings will remain an attractive option for many startups, especially those that have raised significant amounts of private capital or are nearing cash flow positivity.

Comparison of pre-IPO pre-money valuations ($B) for 2019 to 2020*



Source: PitchBook | **Geography:** US
*As of December 3, 2020

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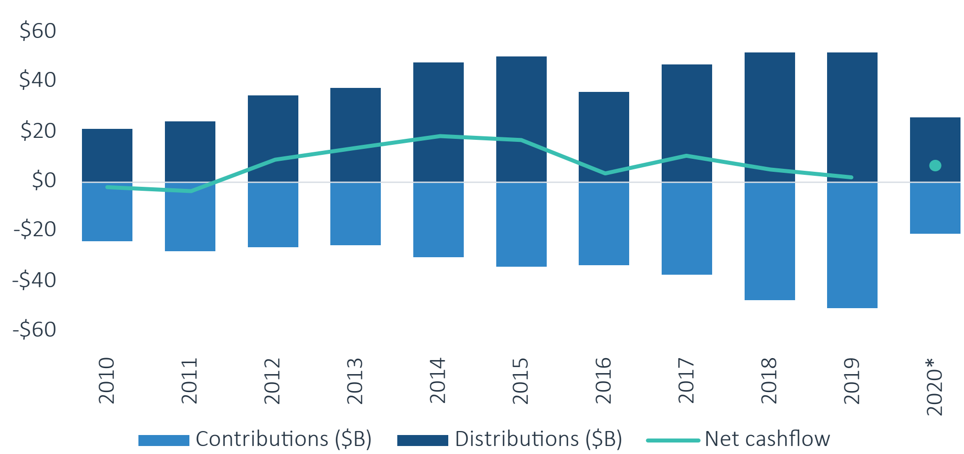
Outlook: Proportion of late-stage VC deal value relative to IPO proceeds will continue to compress in 2021

Rationale: Late-stage VC investment reached a new high in 2020 through the middle of November at $92.1 billion, continuing a decade-long increase in activity. We expect this flood of capital to the largest startups to continue and set a record in 2021 given the expansion of nontraditional participation in VC. While this surge in late-stage activity outstripped IPOs by a massive margin for many years, that gap shrank considerably in 2019 and has remained narrow in 2020 due to both broad IPO activity and a handful of massive outliers. We anticipate that 2021 will also be a strong year for IPOs based on recent filings and indications from market participants, along with a seemingly open IPO window. Given this perceived strength, we believe the gap between late-stage VC investment and IPO proceeds will continue to stay at the lower levels from the past two years.

Caveat: IPOs are difficult to predict, and the backlog of these deals can evaporate just as quickly as it materialized. The flow of new IPOs would dry up with a significant correction or economic struggle that affects the prices in public equity markets just like we saw at the beginning of 2020 with the onset of the pandemic. If this were to come to pass, the relationship between late-stage deal value and IPO proceeds would widen significantly since VC activity tends to be less correlated than IPO volume to the public market performance.

The total amount of capital available to late-stage startups has consistently increased the deal sizes and valuations for these mature startups, driving total capital investment to new heights, with 2020 to date reporting $92.1 billion flowing to these companies. We expect even more capital to flow into late-stage VC funds in 2021 given the distributions back to LPs encouraging recommitments or increased allocations, the ever-expanding group of nontraditional investors deploying capital to VC and, most importantly, startups' continued penchant for remaining under private backing and

VC cash flows



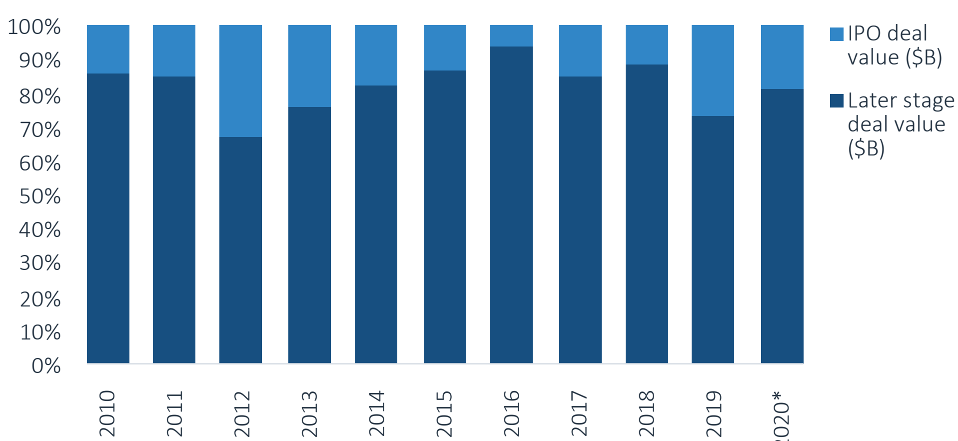
Source: PitchBook | **Geography:** US
*As of March 31, 2020

raising an increasing number of rounds. The massive exit years of 2019 and 2020—which revolved around a handful of multibillion-dollar IPOs—have driven the accelerating cash distributions we've begun to see in 2020 and that we expect to continue in 2021. The huge stakes that VCs owned in these startups are finally being liquidated, which will likely result in a windfall for a small group of VC firms and the LPs in those funds. Whereas the swelling capital availability at the late stage has been a constant trend over the last decade or so, this more abrupt jump in cash flow magnitude should instigate robust capital investment in the stage going into 2021. For instance, in the accompanying chart, VC distributions in the US in Q1 2020 posted essentially half the total distributions from full-year 2019.

As previously mentioned, IPOs have been incredibly strong over the past two years, especially regarding the total value of the VC-backed companies that made the transition to public markets. This momentum seems set to continue through the end of 2020 and the start of 2021. Public stock market indices have fully recovered from the drop brought on by the COVID-19 pandemic and have recently set new all-time highs. Additionally, a handful of highly valued VC-backed startups, including Airbnb, Affirm, Roblox, and Wish, have already filed with the SEC. This sends a positive signal around the health of the IPO market and a harbinger that many startups find the current conditions favorable. While some, if not all, of those listed examples might complete their IPOs before the end of 2020, it still sets the stage for a full 2021, including a potential blockbuster listing of Stripe.

Given our positive outlook on this activity, we expect that the growth of proceeds from IPOs will outpace the growth of late-stage VC investment. We feel that VC deal value has more or less found a consistent level, meaning that we expect slower growth of that amount relative to the potential that IPOs have to increase the volume over what we've seen in 2019 and 2020. As of November 18, 2020, the ratio of late-stage VC deal value to IPO proceeds in 2020 was 4.5x, we expect that multiple to be lower in 2021 on the back of an improving IPO environment and more consistent late-stage VC deal activity.

Late-stage VC deal value and VC-backed IPO proceeds



Source: PitchBook | **Geography:** US
*As of November 18, 2020

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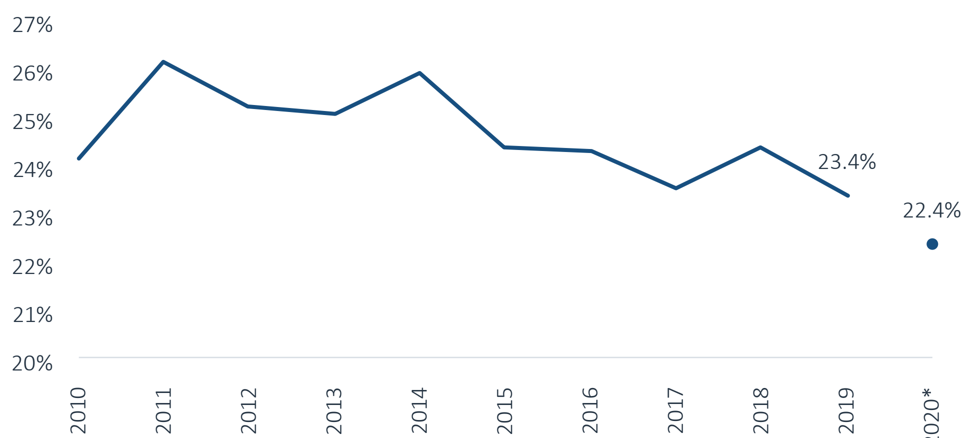
References in this outlook include Silicon Valley, the Bay Area, and San Francisco, used interchangeably. PitchBook generally recognizes these areas using the San Jose-San Francisco-Oakland combined statistical area (CSA).

Outlook: Bay Area will fall below 20% of deal count for first time

Rationale: Over the past few years, there has been a concerted effort by the venture industry to get capital outside of the main tech hubs—the Bay Area, New York, and Boston. Despite Silicon Valley's continued dominance and rising yearly deal counts, its proportion of total VC deal count activity in the US has softened, falling nearly each year since 2006. The COVID-19 pandemic and subsequent exodus from San Francisco will only exacerbate this trend. Given these factors, we expect the Bay Area's proportion of VC deal count in 2021 will fall below 20% in the US, the first time in our dataset.

Caveat: The Bay Area is still home to the highest concentration of capital in the VC world. Through Q3, Bay Area VC funds alone raised over $24 billion, 44% of the total raised by US-based VC funds. Naturally, investors enjoy plenty of benefits by basing their operations near company headquarters—from receiving in-person updates, sitting together in a board room for quarterly meetings, or getting to know the founders better than they may be able to over Zoom. But those benefits seem less important now than at the beginning of 2020, as angel, seed, and even early-stage investors have had to completely upend their routine to source deals and invest over Zoom or other videoconferencing products.

Bay Area deals (#) as a proportion of total US VC deals



Source: PitchBook | **Geography:** US
*As of September 30, 2020

Two distinct factors drive this outlook. First, the pandemic has had a noticeable effect on the San Francisco area. From the start, many of the city's population began to move to less expensive areas. Vacancy rates are climbing and rental prices falling as the tenants move away.[3] Many of these movers are likely also founders or future founders of companies looking for funding. Investors have left, either temporarily working from new locations, or relocating altogether. For example, 8VC, has made 70% of its

3: "S.F. Renters Gain Rare Leverage in Pandemic, with Vacancies Way Up and Prices Way Down," San Francisco Chronicle, Kellie Hwang, November 25, 2020.

investments in California-headquartered companies, yet it moved its own headquarters from San Francisco to Austin in November. The Bay Area's losses are Boulder's, Seattle's, Salt Lake City's, and other cities' gains. However, we are not bearish on San Francisco's long-term position as the center of VC.

Second, a long-term shift to secondary or tertiary tech hubs has been occurring for some time, often by new VCs launching outside of Silicon Valley. The movement of people and companies away from San Francisco and Silicon Valley will only accelerate this trend, further catalyzed by the VC industry's shift to Zoom and other digital platforms for investment. The Valley has built itself into a venture juggernaut and will continue as the top area for venture activity. But the pandemic has thrust the VC ecosystem into new territory where Zoom meetings and alternative deal sourcing methods reign supreme. This shift has, at least somewhat, leveled the playing field for investor attention. Investors are no longer driving around the city to take meetings. Over Zoom, it doesn't matter if the company is in the same building, city, state, or country. This alone will help some dollars and deals move outside the Bay Area, at least during the rest of 2020.

While the Bay Area's share of VC deal count continues to decline, this shift has been slow, falling YoY by 1.0% or more only once during the past decade. Through Q3, the area's proportion of deal count stood at 22.4%, down from 31.2% in 2006. Given this history, our prediction of a 2% drop would prove rather significant.

On the other hand, capital availability in areas outside of a major tech hub remains a barrier for significant growth. Historically, local capital has been the financier of angel and seed deals, propelling companies into venture. In past research, we found that the median distance between seed-stage companies and a lead investor is nearly 5x shorter than the distance between the two parties at the late stage. This year has been especially difficult for emerging managers—which are more likely to base operations outside of VC hubs—to raise money, which could inhibit investment activity at the earliest stages. LPs reinvested with brand-name funds with long track records of success in 2020, placing capital into known entities rather than perform virtual due diligence on emerging funds or managers with which they had no relationship. San Francisco alone has raised more than 100 funds each year since 2014; while 2020 might be able to break that streak, investors will still direct capital to the Valley.

For many years, it seemed only a monumental shift throughout the venture industry would push capital outside of the Bay Area. We believe 2020 has created enough momentum for that shift to occur. Not only has the push to video conferencing software for standard investment practices helped democratize venture, the exodus from San Francisco, even if it does not become a long-term trend, will push opportunities to other markets.

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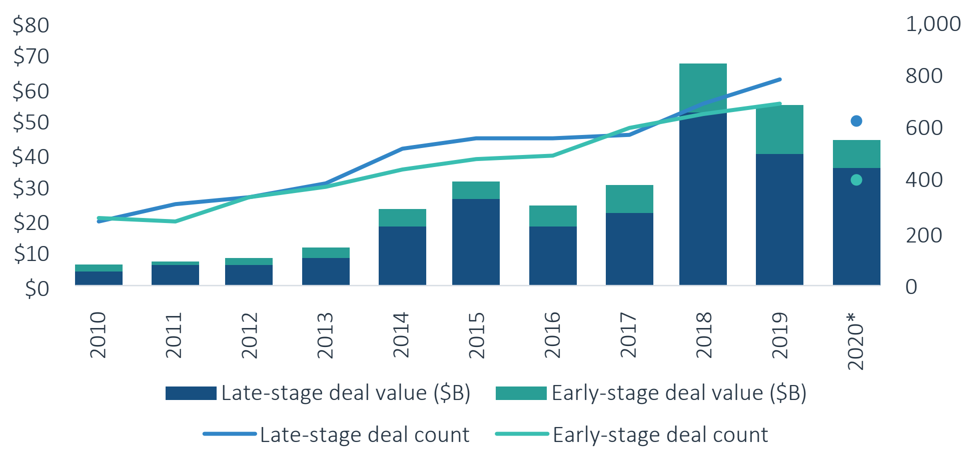
Outlook: Nontraditionals will lead a record 1,600 early- and late-stage VC deals as venture becomes more ingrained in their investment strategy

Rationale: Nontraditional investment has been a major story of the year. The top end of the market has been on a historic investment pace, largely due to the activity of these investors. Once derided as "tourists," these investors now lead, or solely finance, a greater number of VC deals than ever before. In 2018, nontraditional investors led over 1,300 deals. In 2019, this number grew to nearly 1,500, which 2020 will likely top despite the economic headwinds that could have pushed these investors out of venture. Investing in venture rounds has become much more ingrained within nontraditional investor strategies, and as these firms grow even more accustomed to and comfortable with these deals, we expect their penchant for leading venture rounds will continue to grow. Due to the solidification of VC within nontraditionals' strategy, we anticipate nontraditional investors will lead more than 1,600 early- and late-stage deals in 2021 to set a new record.

Caveat: An area of venture growth exploited by nontraditional investors has been the mega-deals that have permeated the venture market over the past few years. These deals, 85% of which occurred at the late stage through Q3, have taken on aspects that don't resemble traditional VC, bringing large equity managers in as lead or sole investor. If these deal types were to decline as a proportion of completed deals, if companies decide to exit before reaching this stage en masse, nontraditionals may not find the available opportunities in the private markets that they have become accustomed to over the past couple of years.

Deal activity in which a nontraditional investor led or solely financed the deals



Source: PitchBook | **Geography:** US
*As of September 30, 2020

Nontraditional venture investment activity has grown significantly in recent years. Whether it be the corporate venture boom or the entrance of large equity managers and hedge funds into VC dealmaking, many aspects in the current venture market are now driven by nontraditional investors.

The persistence of nontraditional investment activity during the economic headwinds driven by the pandemic says a lot: Nontraditional investment is in venture to stay, and "tourist" is no longer an accurate moniker.

2020 has surpassed the record for the most $100 million+ deals through 2020 YTD, nearly reaching 2019's total through Q3 2020. This year is also well on its way to reaching $150.0 billion invested in US VC, including $100.0 billion in the late-stage. This level of startup funding wouldn't be possible without nontraditional investors. Through Q3, roughly $20 billion more capital had been invested in US late-stage VC rounds as was raised by all US-based VC funds in 2020. The top end of this market can only be supported by the large equity managers and the nontraditional capital now investing in greater capacity than ever before.

Rather than simply serving as an extra source of capital for upsized rounds, nontraditional investors are leading rounds at a higher rate than ever. In 2019, nontraditional investors led 691 early-stage investments and 783 late-stage rounds, and 2020 will likely reach near the same totals despite economic uncertainty—albeit at a proportion skewed to the late stage.

As VC firms have pushed for companies to grow faster and remain in the private market longer, nontraditional investors realized they were losing out on valuable growth by waiting until companies completed an IPO. Rather than wait, these investors quickly moved to recapture a stake in that growth, investing in private rounds in a part of the venture market that didn't previously exist. Now, larger and more mature companies remain in the private markets, a shift from the types of companies that nontraditional investors have seen go public in the past.

While these types of investors were previously seen as market takers (non-price setting) rather than makers in the venture market, they have swiftly changed that sentiment. For example, Tiger Global and Coatue Management—hedge funds that have raised dedicated venture funds—have instilled VC as a standard investment strategy at the firm. Since the beginning of 2018, these two investors alone have led or solely financed 71 VC deals in the US. These two serve as a model for how nontraditional strategy can, and has, merged with venture in the past few years.

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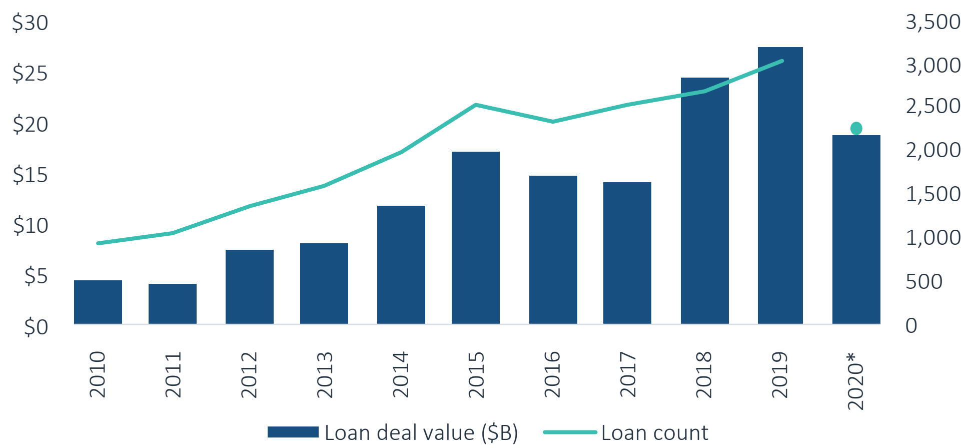
Outlook: Venture debt issuance will continue a string of record years, surpassing 2,600 deals and $25 billion originated for the fourth consecutive year.

Rationale: Through mid-October 2020, more than $18 billion in venture debt had been loaned to the venture industry. By year-end, the venture debt total will almost assuredly surpass $20 billion for the third consecutive year, and we believe that 2021 will mark the fourth consecutive year to surpass $20 billion in venture debt value. We have seen several new venture lending funds raised this year, and tech banks and business development companies (BDCs) have remained extremely active in venture. As startups continue to raise more capital in private markets, venture debt has provided a cheaper and non-dilutive option to equity.

Caveat: While venture debt has grown over the past few years (total debt value has only surpassed $15 billion once prior to 2018, according to our dataset), COVID-19-related challenges have increased the appetite for venture debt. However, the overall venture market has been a major driver of past growth. Just as with venture equity financing, large deals are driving the growth of venture debt. Airbnb, for example, raised $1.0 billion in debt during the early stages of the pandemic. A decline in venture industry financing will likely pull down venture debt figures as well.

Annual VC debt activity



Source: PitchBook | **Geography:** US
*As of October 20, 2020

In 2019, VC-backed companies took on more than 3,000 loans, nearly double the number of loans taken out just five years prior. 2020 may still be a banner year for venture debt, both in terms of total lending value to VC-backed companies and in the growth in knowledge and understanding of venture debt throughout the industry. There has also been an increase in the number of venture lending funds within the market. Applied Real Intelligence announced its venture debt fund in October, Runway Capital Growth launched a debt fund focusing on life sciences in August, and several revenue-based lending funds closed in 2020 to expand the borrowing options for founders.

Bank lenders have also increased their loan books. Silicon Valley Bank added $5.0 billion in net loans through the first nine months of 2020—although some of those loans may serve non-venture borrowers.

The overall venture industry has fueled the growth of venture debt given that the asset class relies on a venture firm to sign off on a portfolio company's loans. However, a lack of understanding the benefits and use cases for debt has presented a larger barrier to lending growth. The pandemic's swift hit to certain industry revenues left many VC-backed companies struggling with capital runways. Venture lenders were quick to jump on the opportunity to provide bridge financings and give startups the non-dilutive cash they needed.

Low rates have also aided venture lending, as reference rates such as LIBOR or the prime rate keep interest rates relatively low (venture lenders do add percentages to these), and those are likely here to stay for a while. For LPs looking to invest in debt vehicles, venture lending funds can offer relatively higher returns than traditional debt products, and venture debt funds have historically shown relatively low risk (for example, low rates of charge offs). This should keep LP participation in these debt funds high, bringing more capital to the market.

Similar to the venture market, large, late-stage debt financings have boosted the overall total of venture loans. The We Company continues to take on debt from its own backer, SoftBank, in its attempt at a resurgence. In total, 20 debt rounds of $200 million or more have been taken on by VC-backed companies in 2020; 28 such rounds were raised in 2019. While we believe these rounds will persist for at least the short term, a decline in this area of the venture industry could lead to a large drop in potential lending value.

Even if large loans decline, venture debt has grown significantly in terms of count, highlighting its increased adoption even within smaller deals at earlier stages.

2020 predictions scorecard

Below we summarize our predictions for 2020 and how they fared thus far.

The median pre-money valuation for seed-stage companies will eclipse $8.5 million.	Fail	Through Q3, the median seed-stage pre-money valuation stood at $7.5 million, equaling the value from the year before. Unless this figure shifts higher with Q4 data, 2020 will be the first year since 2019 that seed valuations have not risen by at least 5%.
2020 will mark a new annual record for US VC mega-deals.	Pass	2020 easily set a new record for mega-deals, with more than 250 completed through November. Large deals have benefitted from high levels of dry powder, strong fundraising, and heightened nontraditional investor participation. In 2019, 237 mega-deals were completed.
CVC activity will reach a new record in 2020.	Pass	Through November 2020 CVC deal count has already surpassed the level of activity we had recorded for 2019 at year's end. Corporate investment, and nontraditional investment in general, has remained strong throughout the pandemic, signaling that cCorporate investment in startups is a strategy here to stay.
The median US VC fund size will top $110 million, reaching a decade high.	Fail	While the median fund size has come in around $78 million, a decade high, it won't touch the $110 million outlook despite a record year of fundraising. The average fund size has grown to over $250 million, however, which is a new record due to the 41 funds closed on $500 million or larger (just 24 funds of this size closed in 2019).
SoftBank's second Vision Fund will not close at its target of $108.0 billion.	Pass	Softbank did not close its Vision Fund 2 this year, but has been making investments. The fund, which is currently wholly funded by Softbank and associated entities, has completed around 20 deals as of this publishing. Masayoshi Son has acknowledged that Softbank is not currently in the position to raise $108 billion.
At least three direct listings of VC-backed companies valued over $1 billion will close in 2020.	Split	Just two companies completed direct listings in 2020 (Asana and Palantir), somewhat randomly occurring on the same day (September 30). The SEC made news this year by approving a proposal by the NYSE allowing companies to raise primary capital alongside the direct listing, which should encourage more startups to pursue this route.