



 PitchBook[®]

VC Valuations Report

2016
Annual



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US VC valuations still growing

Introduction

Key takeaways

- > Despite the overall decline in venture capital activity last year, median valuations continued to rise
- > VC deals with corporate VC participation have consistently been completed at higher valuations than those without
- > Participating liquidation preferences have declined to the lowest levels in the past decade

Valuations are one of the most intriguing parts of VC. A number that at times seems arbitrary, is at other times a driving force behind a bubble. The recent growth of VC valuations may have created an even hazier understanding of how round prices are agreed upon, or even if VC is able to price itself correctly.

This report offers thorough datasets of US VC valuations from the past decade, providing break downs by series, stage, sector and more. In addition, data surrounding corporate VC, mutual funds and hedge funds is provided, as well as a section dedicated to liquidation preferences around the industry.

We hope this report helps inform your analysis around current VC valuation trends. If you have any questions or comments, please feel free to reach out to us at reports@pitchbook.com.



KYLE STANFORD

Analyst

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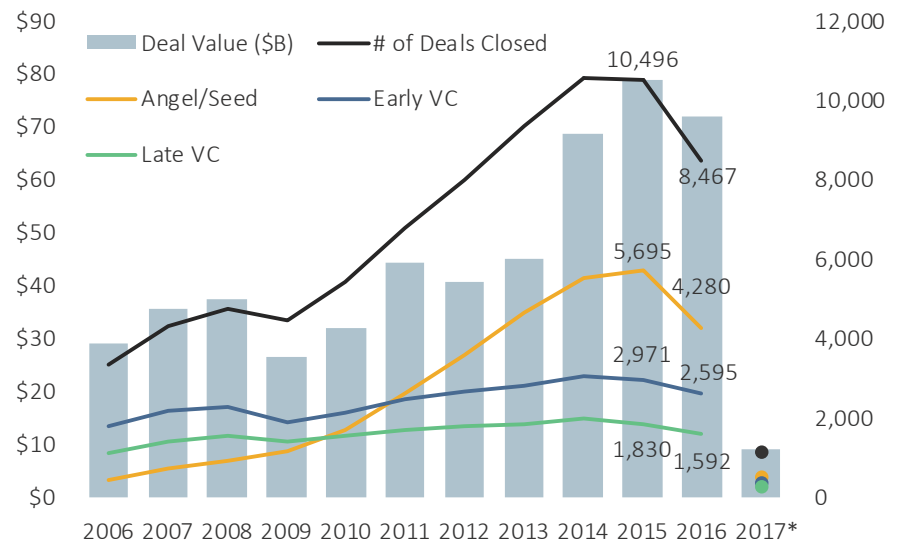


The new normal

Overview

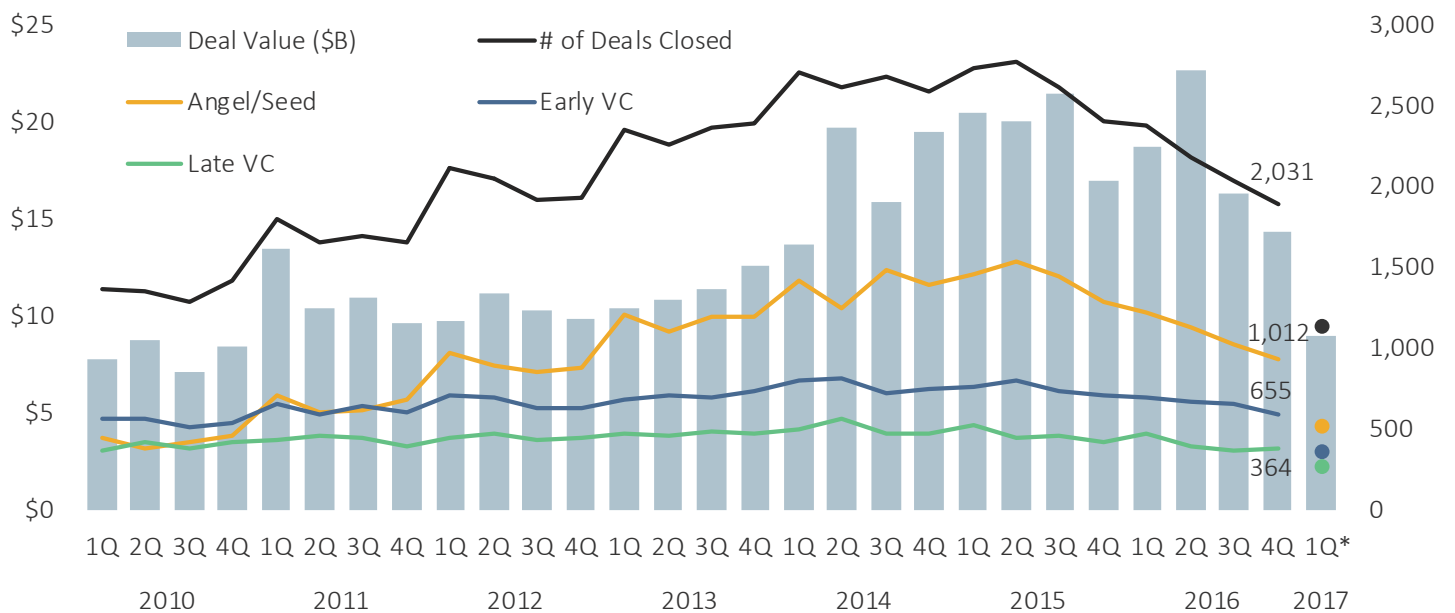
The general attitude around the venture industry coming into 2016 wasn't one of excitement, to say the least. The exit market had dramatically slowed in the second half of 2015, and the dislocation between median late-stage private valuations and the falling price of public tech comparables caused a frenzied response to what was deemed at the time a valuation bubble. Sure, several private tech companies had their valuations marked down by mutual fund investors, but the price of their most recent round didn't change. The growth in private valuations had been undeniably extensive. Never had so many companies been valued at \$1 billion than before 2016 began, and never had there been so much unrealized value in the VC market—at the

US VC activity by year



Source: PitchBook
*As of 3/1/2017

US VC activity by quarter



Source: PitchBook
*As of 3/1/2017

beginning of 2016, vintage 2009 through vintage 2012 RVPs all stood above 1.1x. As the industry became stretched with valuations growing and exit opportunities sliding, entrepreneurs and investors alike began to see that capital needed to be invested and raised in a more rational way. The number of unicorn deals declined significantly last year, falling to just

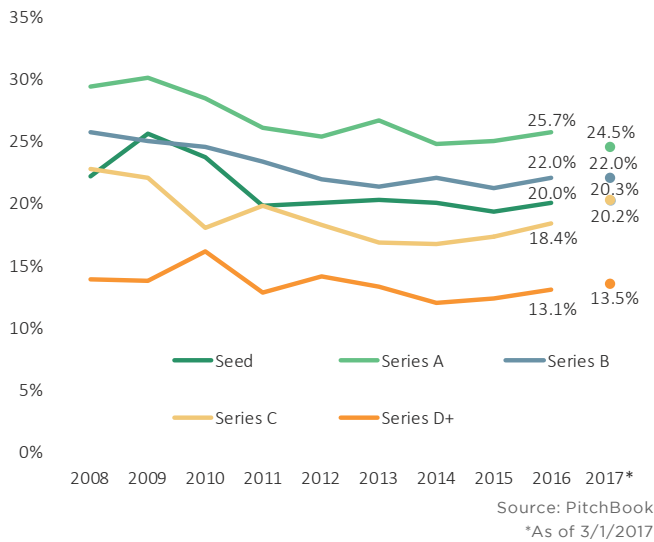
37 from 60 the year before, but any hesitance created at the top of the market didn't find its way throughout earlier stages of the industry.

Relative to historical figures, VC activity stayed relatively high in 2016 as 8,467 deals were completed and the decade's second-highest capital sum made its way into startups. Deal sizes

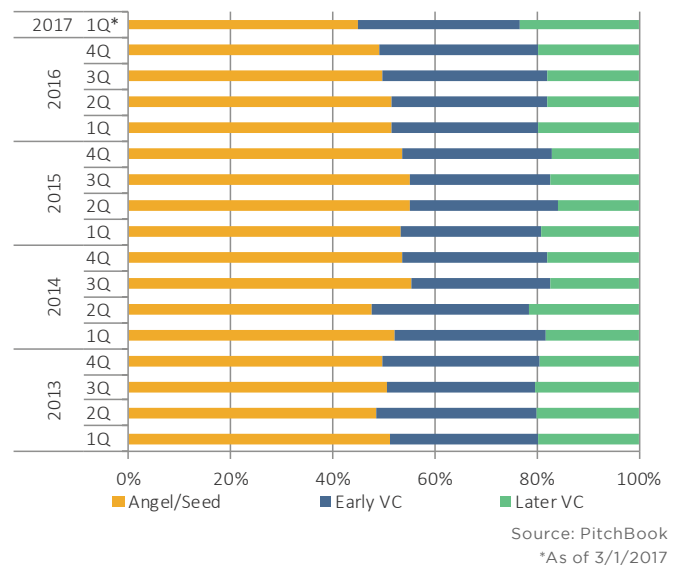
continued to grow as investors looked for companies with more traction and emphasized slower burn rates. Altogether, median valuations stayed elevated across the board, growing at nearly every stage in 2016.

Certain signs of a plateau did begin to show last year, however. Series D+ valuations dropped year-over-year (YoY) for the first time since

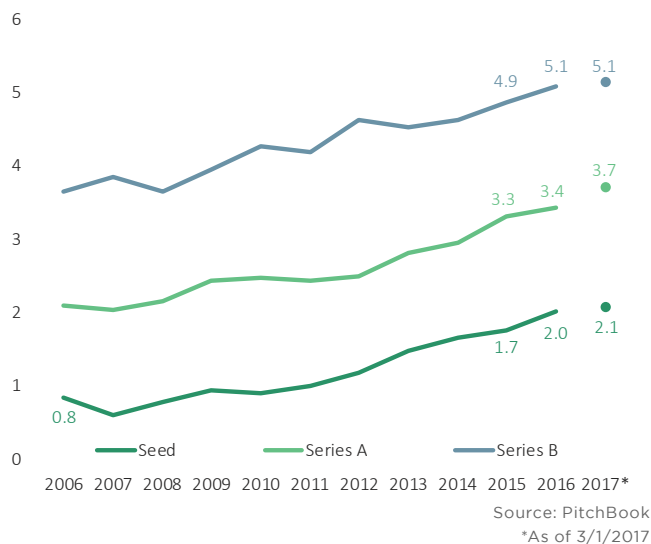
Median % acquired by series in US



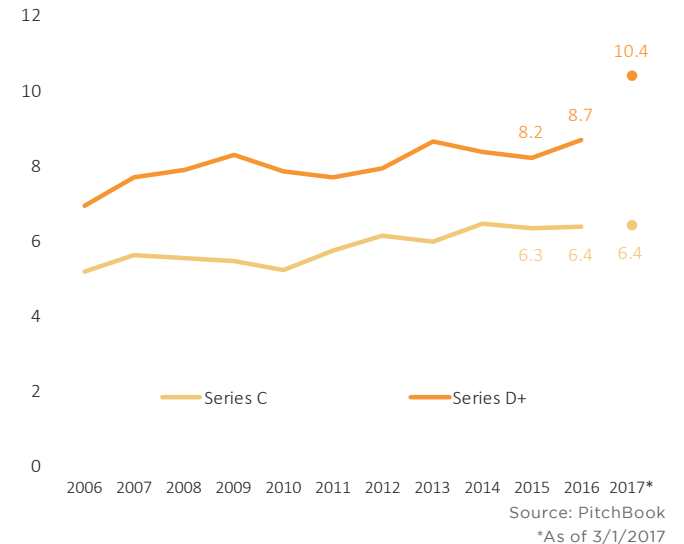
US VC activity (#) by stage



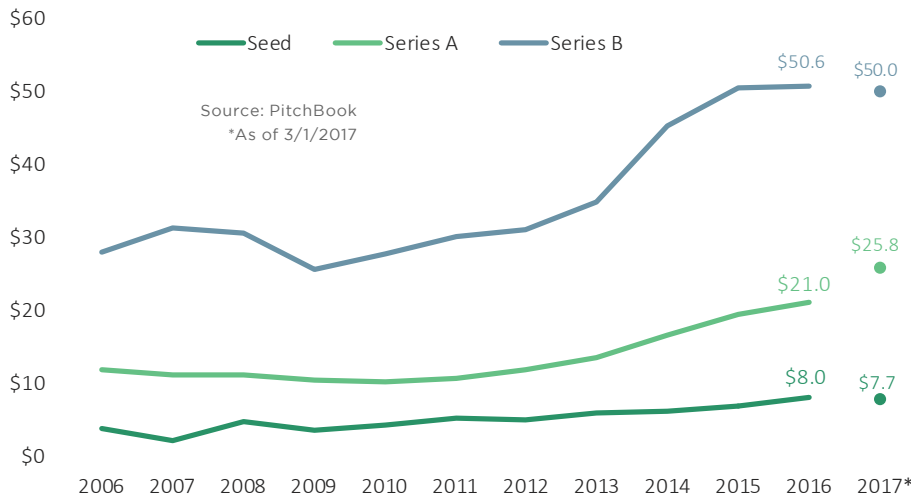
Median age (years) of early-stage US VC-backed startups



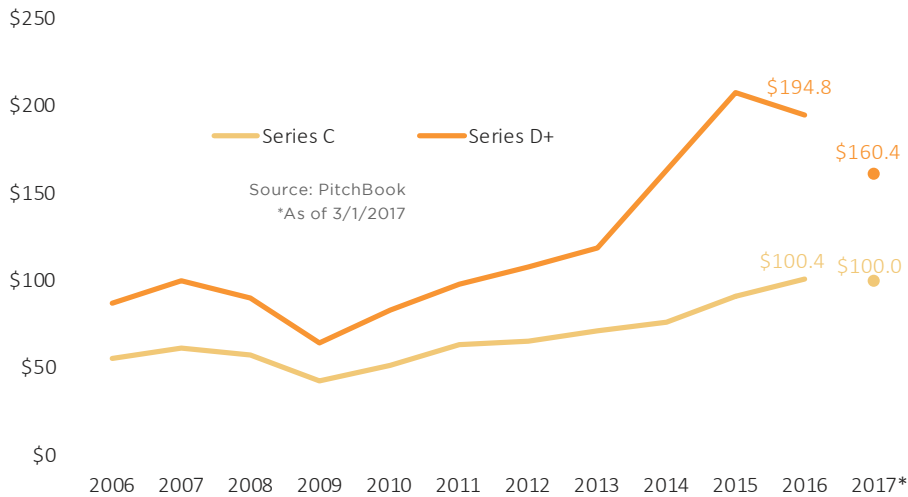
Median age (years) of late-stage US VC-backed startups



Median US early-stage post-money valuations (\$M) by year in US



Median US late-stage post-money valuations (\$M) by year



Companies (#) with exit value < prior financing post-money valuation



2009, and Series B valuations grew only minorly (\$400,000 at the median). Further, the highest number of companies in the last decade exited at a valuation lower than their most recent private value. We have also seen cracks develop in the previously exalted ranks of unicorns. Zenefits will cut 50% of its workforce and has replaced its CEO after legal questions around its platform arose; lending marketplace Prosper is reportedly in the process of raising a massive down round; and Uber has been embroiled in a series of controversies over recent months. Put more simply, unicorns are reaching the point where more than just growth metrics matter.

But the overarching theme stays the same: Venture is healthy. Several unicorns have already made their exits thus far in 2017. The high-profile IPO of Snap (NYSE: SNAP) raised \$3.4 billion at a valuation of almost \$20 billion. AppDynamics was acquired by Cisco (NYSE: CSCO) for \$3.7 billion just before making its public debut. And just last week, Okta (\$1.2 billion valuation) and Yext (\$566 million valuation) filed for IPOs—while these valuations may not be near the top of venture, the appetite shown for their offerings could prove a more appropriate barometer for the greater exit market in 2017. While analyzing private valuations can provide insight into the market, until there are actual exits, we won't know how well the industry has priced itself in recent years.

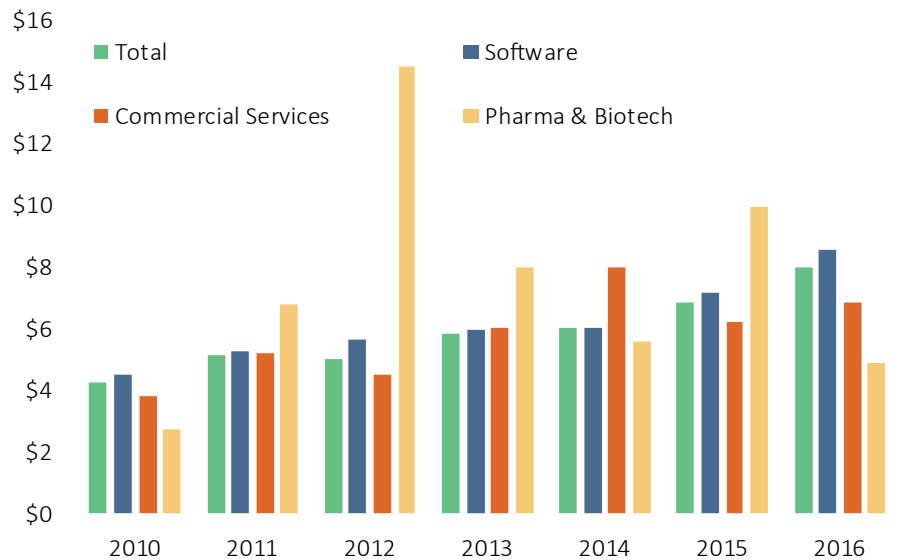
Seed stage seeing significant change

Seed valuations and trends

Access to newer forms of capital have lengthened seed timeline

The growth of new forms of investors, namely accelerators, pre-seed funds and crowdfunding sites, have given entrepreneurs several different routes to launching a business than raising seed capital. The median age of a company before bringing on seed investment lengthened to 2 years in 2016, resulting in startups entering the venture lifecycle with more developed business ideas and a core of employees. It makes sense then that the median seed size has grown by more than 200% since 2010—to \$1.5 million in 2016—equating to a median valuation figure that has increased by 87% during that time to \$8 million,

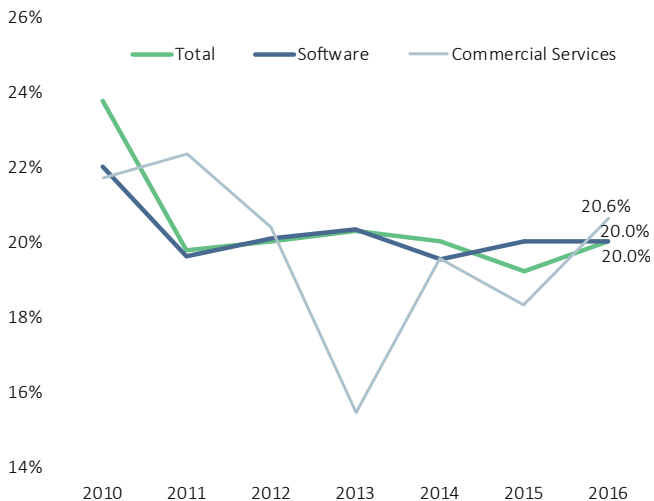
Median seed valuations (\$M) by sector



Source: PitchBook

Investors holding strong on seed stage stakes

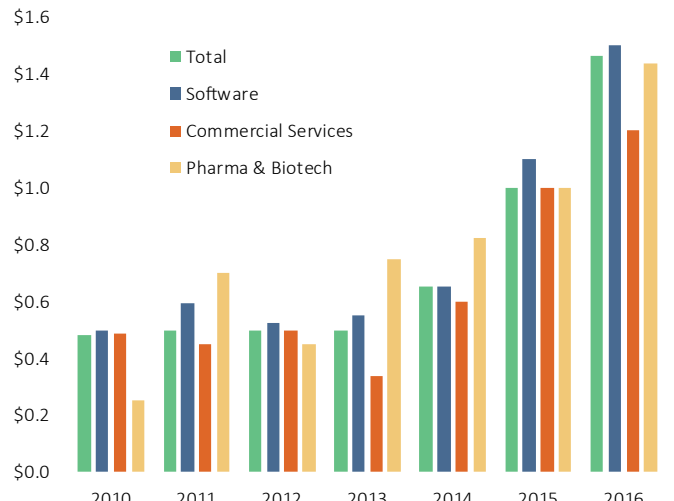
Median % acquired at seed by sector



Source: PitchBook

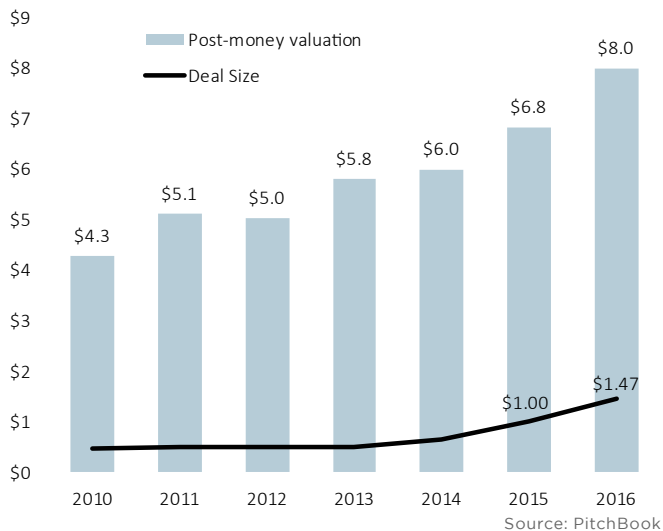
Seed deal sizes roughly double over last three years

Median seed round size (\$M) by sector

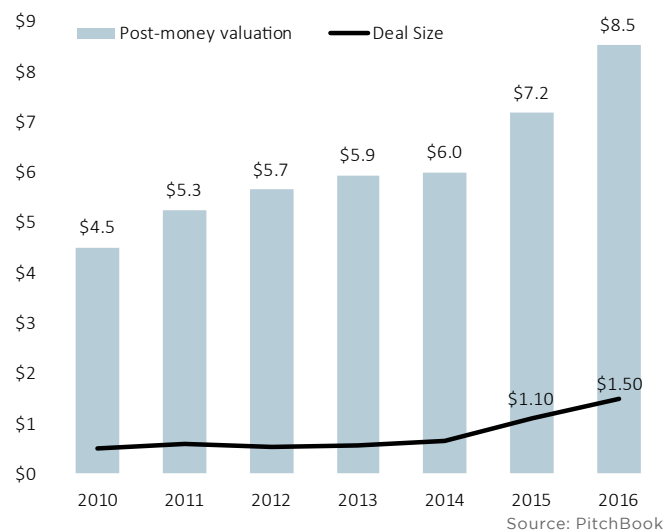


Source: PitchBook

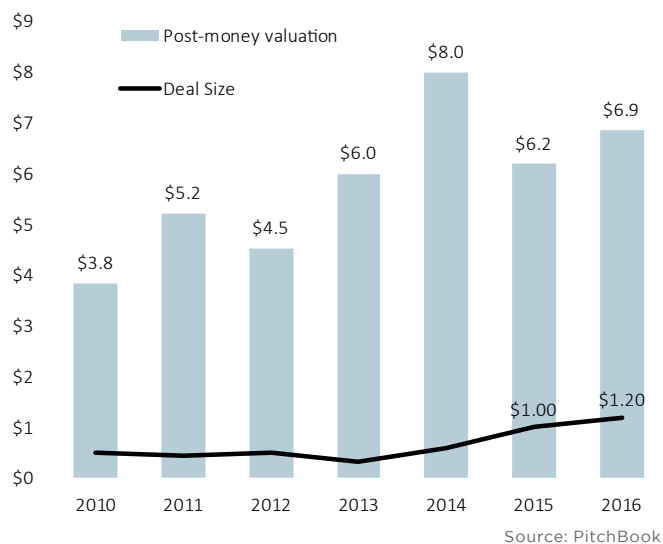
Median seed size and post-money valuation (\$M) by year



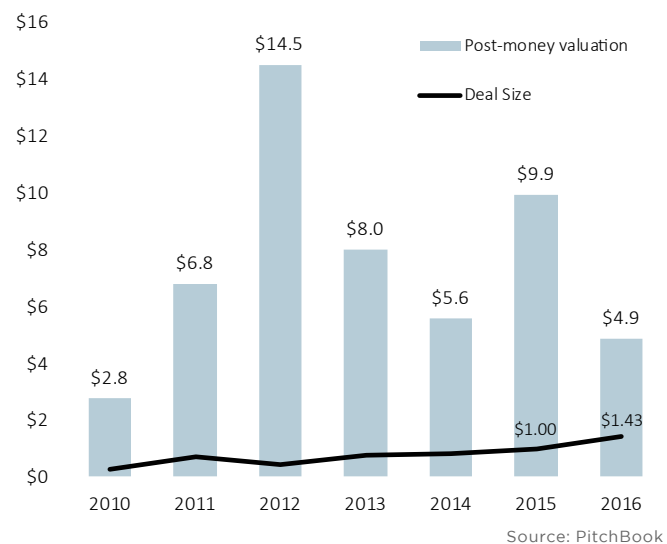
Median software seed size and post-money valuation (\$M) by year



Median commercial services seed round size and post-money valuation (\$M) by year



Median pharma & biotech seed round size and post-money valuation (\$M) by year



Select largest seed valuations of 2016

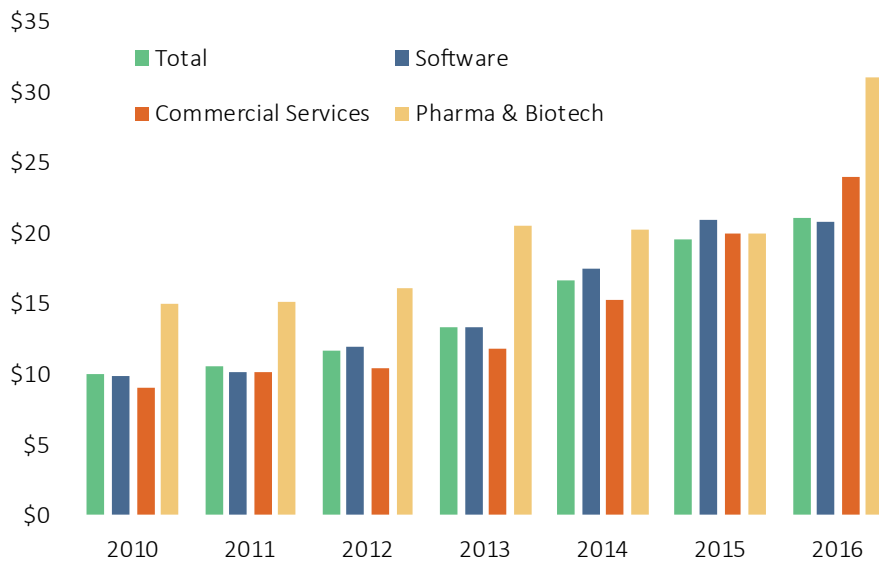
Company	Deal size (\$M)	Post-valuation (\$M)	Date	HQ City	State	Industry
Boomcloud 360	\$5.5	\$132.2	2/25/2016	Austin	TX	Software
Kinetica	\$6.0	\$78.0	4/10/2016	San Francisco	CA	Software
SafeGraph	\$19.5	\$78.0	9/12/2016	San Francisco	CA	Software
Stellar Labs	\$3.7	\$62.6	5/26/2016	Redwood City	CA	Software
SaltStack	\$16.0	\$60.0	11/4/2016	Lehi	UT	Software

Source: PitchBook

Series A financings continue growth

Series A valuations and trends

Median Series A post-money valuations (\$M) by sector



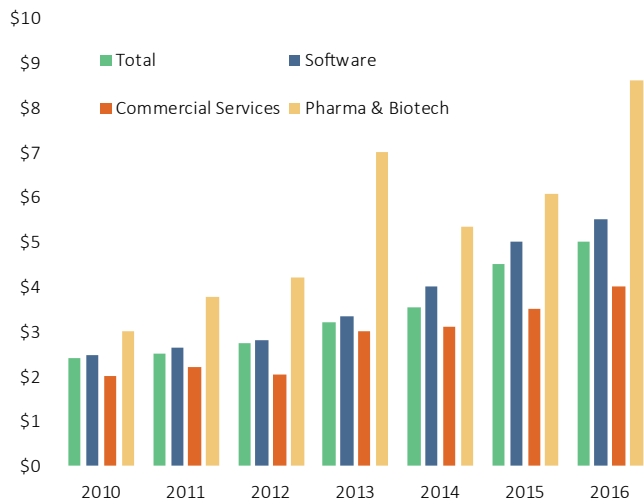
Source: PitchBook

The vast number of seed-funded companies gives investors options

More than 11,000 seed and angel deals were closed between 2014 and 2015, giving Series A investors plenty of choice when startups came back to the table. Knowing this, investors have been able to increase certain benchmarks they are looking for in potential Series A investments. From just 2013, Series A valuations have increased by 57%, with deal sizes growing by roughly the same percentage.

Pharma & biotech financing sizes far outpace other sectors as of late

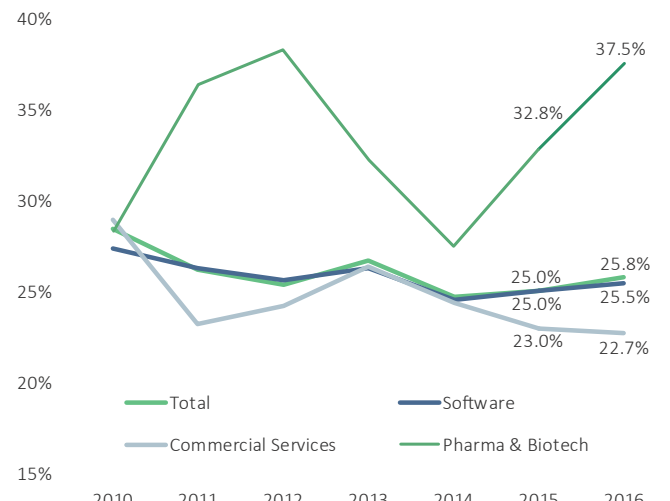
Median Series A round size (\$M) by sector



Source: PitchBook

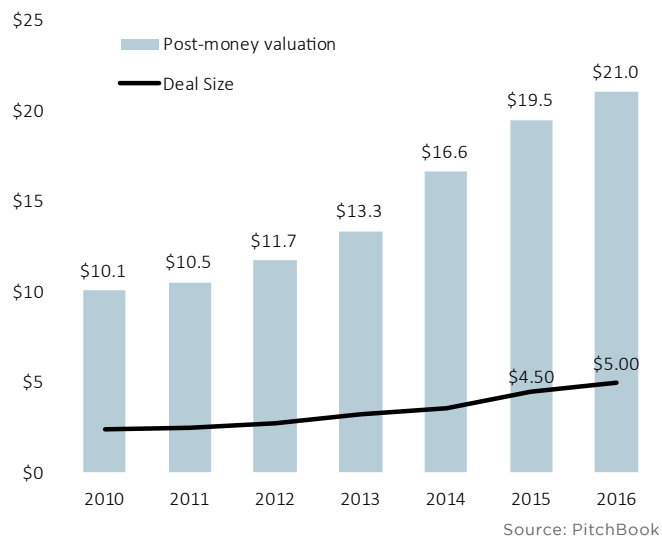
Unsurprisingly, lofty financing sizes come with greater percentages acquired

Median % acquired at Series A by sector

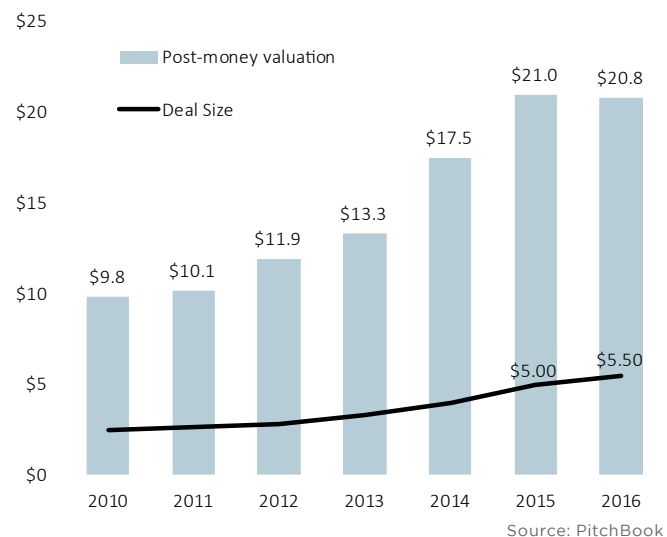


Source: PitchBook

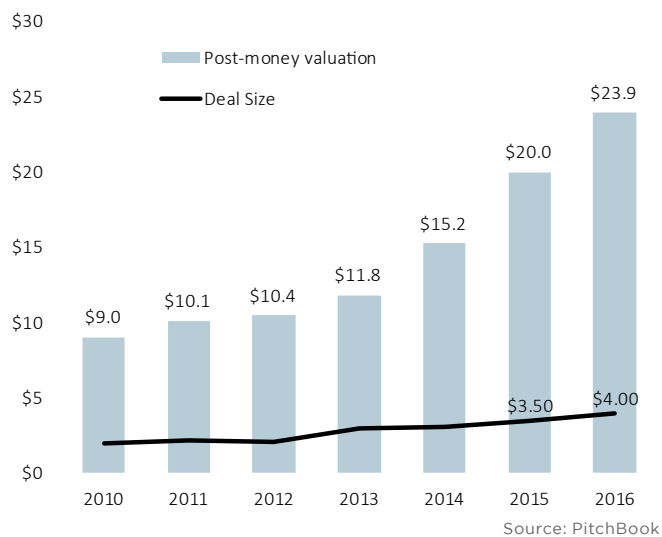
Median Series A round size and post-money valuation (\$M) by year



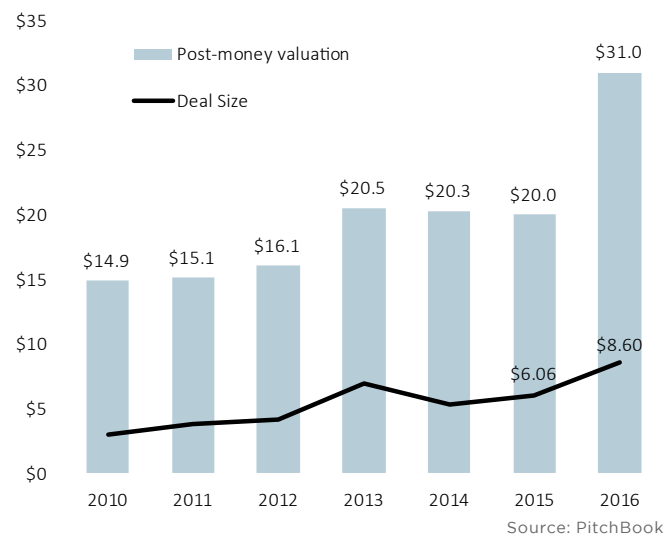
Median software Series A round size and post-money valuation (\$M) by year



Median commercial services Series A round size and post-money valuation (\$M) by year



Median pharma & biotech Series A round size and post-money valuation (\$M) by year



Select largest Series A valuations of 2016

Company	Deal size (\$M)	Post-valuation (\$M)	Date	HQ City	State	Industry
Zoox	\$50.0	\$1,550.0	11/7/2016	Menlo Park	CA	Automotive
Seven Bridges	\$45.0	\$410.3	2/16/2016	Cambridge	MA	Healthcare systems
Osterhout Design Group	\$58.0	\$258.0	11/28/2016	San Francisco	CA	Accessories
Headspace	\$34.3	\$239.0	3/18/2016	Los Angeles	CA	Software
Jive Communications	\$7.5	\$237.6	8/10/2016	Orem	UT	Wireless service providers

Source: PitchBook

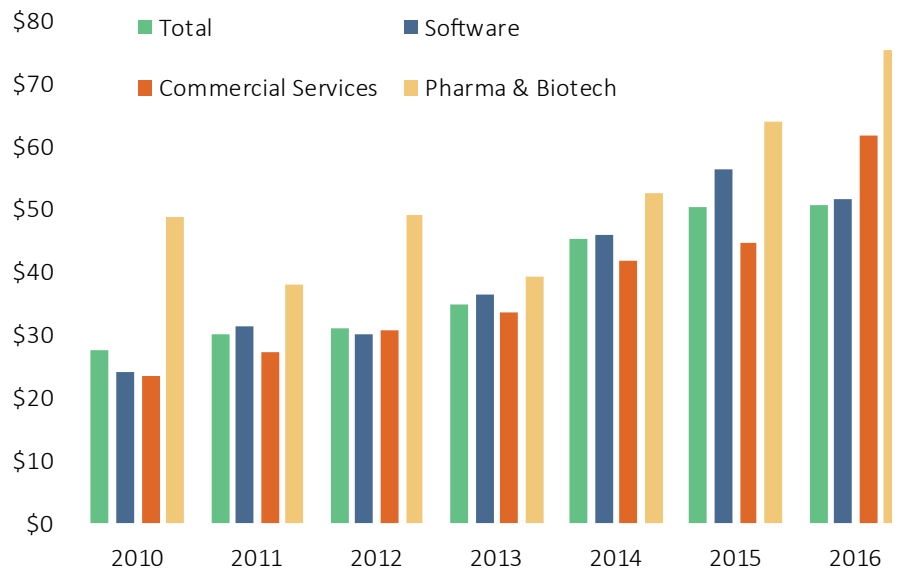
Series B valuations beginning to form plateau

Series B valuations and trends

Series B sitting at a crossroads

Series B valuations grew 83% to a median of \$50.5 million between 2010 and 2015. Last year, however, the Series B median valuation flat lined, finishing the year at just \$50.7 million. With it, deal sizes at the stage also flattened, realizing a jump of just \$400,000 at the median. Despite these plateaus, less than 10% of the deals were raised as down rounds (9.1%), making Series B the stage with the lowest percentage of down rounds and the only to see a decline YoY in 2016.

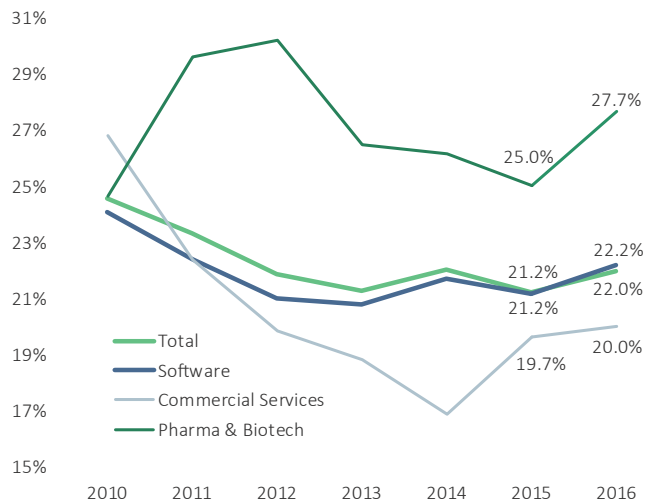
Median Series B post-money valuations (\$M) by sector



Source: PitchBook

The overall median percentage acquired has increased slightly in recent years

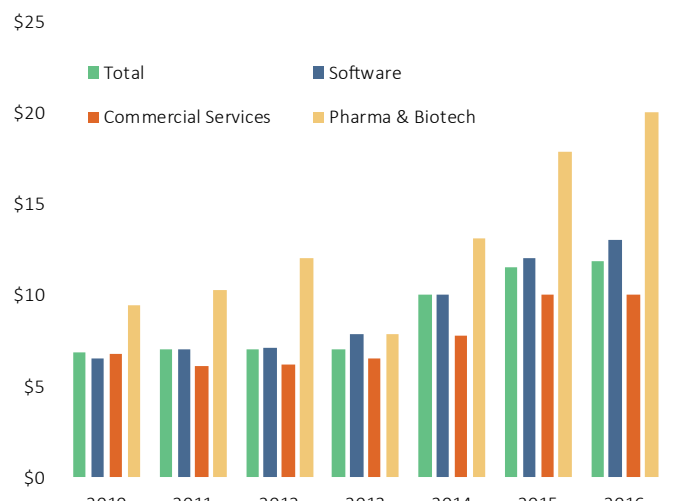
Median % acquired at Series B by sector



Source: PitchBook

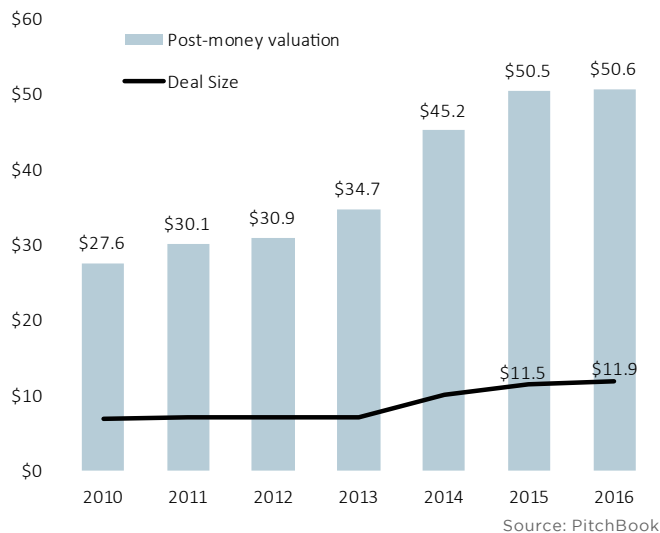
Pharma & biotech financings continue marching upward in size

Median Series B round size (\$M) by sector

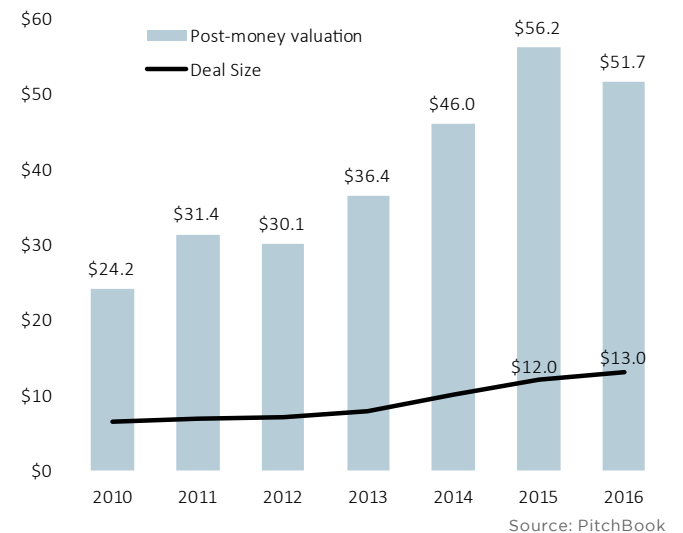


Source: PitchBook

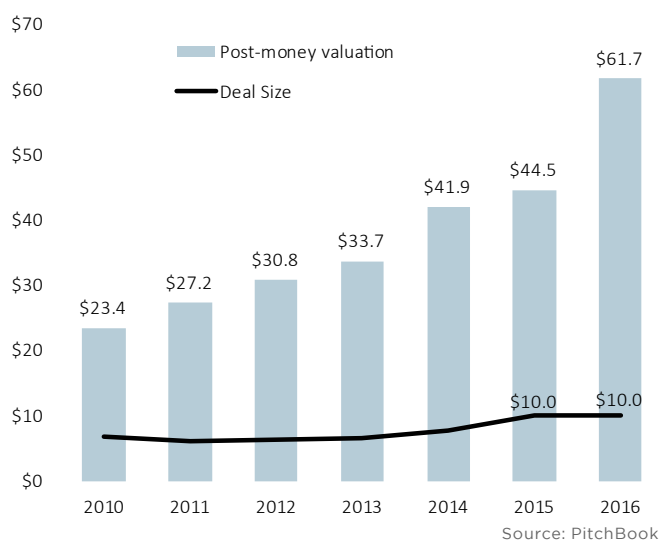
Median Series B round size and post-money valuation (\$M) by year



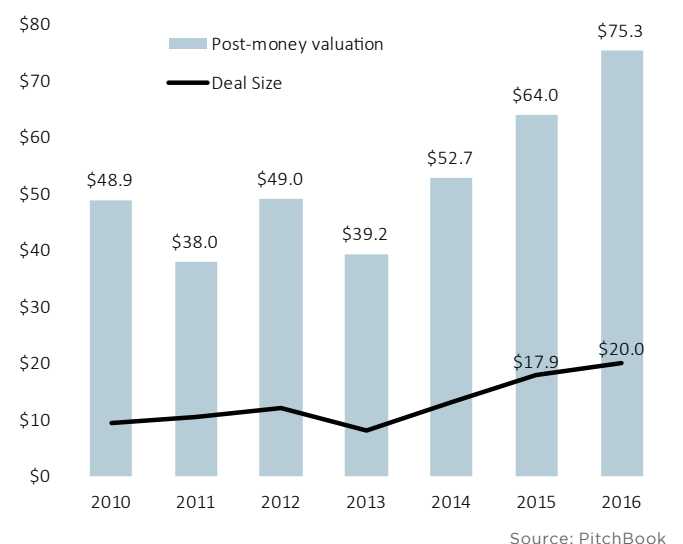
Median software Series B round size and post-money valuation (\$M) by year



Median commercial services Series B round size and post-money valuation (\$M) by year



Median pharma & biotech Series B round size and post-money valuation (\$M) by year



Select largest Series B valuations of 2016

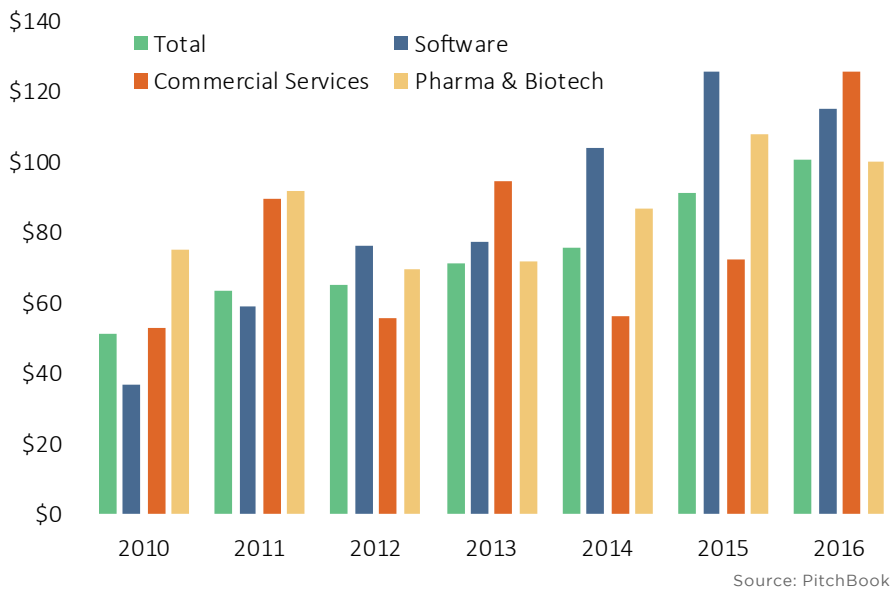
Company	Deal size (\$M)	Post-valuation (\$M)	Date	HQ City	State	Industry
Human Longevity	\$220.0	\$1,888.0	4/4/2016	San Diego	CA	Pharma & biotech
Quanergy	\$90.0	\$1,549.9	8/22/2016	Sunnyvale	CA	Electronic components
Denali Therapeutics	\$130.0	\$1,130.0	6/1/2016	South San Francisco	CA	Pharma & biotech
Gusto.com	\$90	\$1,090.0	6/1/2016	San Francisco	CA	Software
NextVR	\$80	\$966.7	8/9/2016	Laguna Beach	CA	Software

Source: PitchBook

Median Series C valuation hits decade high

Series C valuations and trends

Median Series C post-money valuations (\$M) by sector

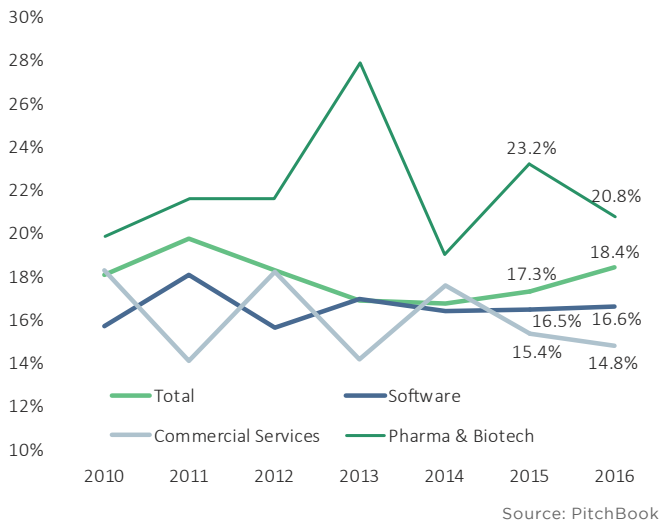


Median Series C valuation surpasses \$100 million for first time

The median Series C valuation has ballooned by almost \$50 million since 2010, reaching over \$100 million last year for the first time. As companies have lengthened the amount of time developing at the early stage, businesses are simply larger and in many cases more valuable by the time they reach the series C stage in today's market. Further, there has also been a huge increase in late-stage capital in recent years. Since 2014, 21 VC vehicles based in the US have closed on at least \$1 billion in commitments, combined totaling more than \$30 billion. While not all is earmarked for late-stage, these funds will help sustain the increases we've seen in both deal sizes and valuations.

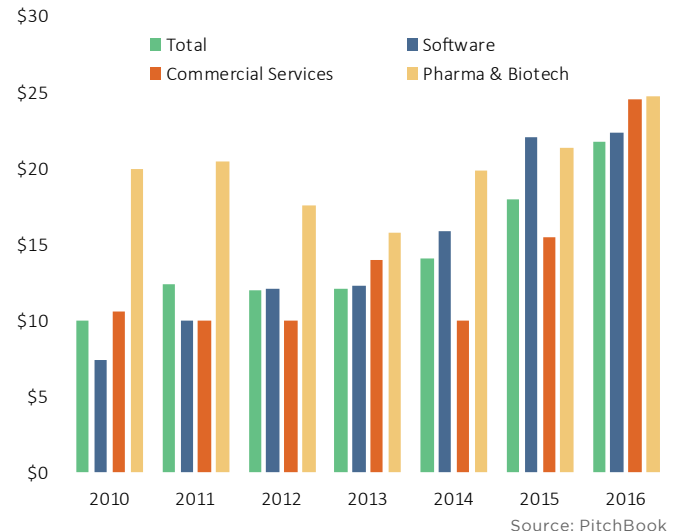
A modest uptick for overall percentages acquired in 2016

Median % acquired at Series C by sector

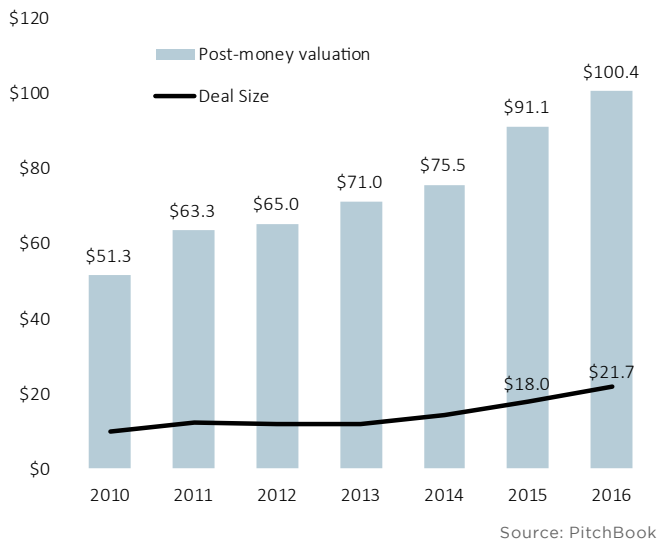


Deal sizes of other sectors have caught up to pharma & biotech

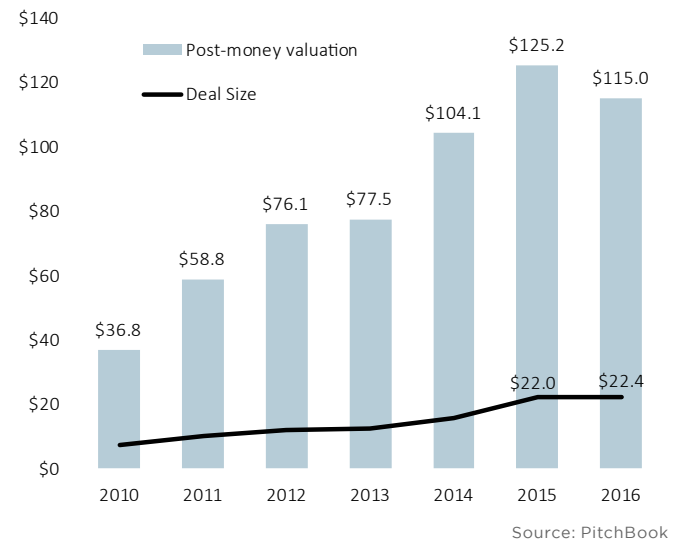
Median Series C round size (\$M) by sector



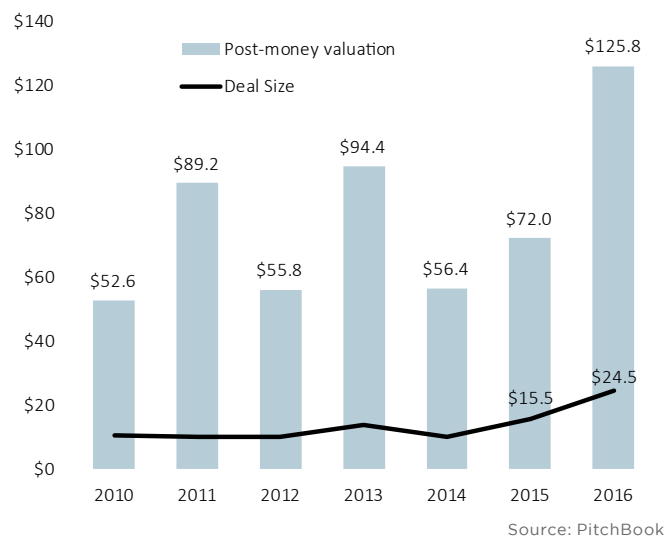
Median Series C round size and post-money valuation (\$M) by year



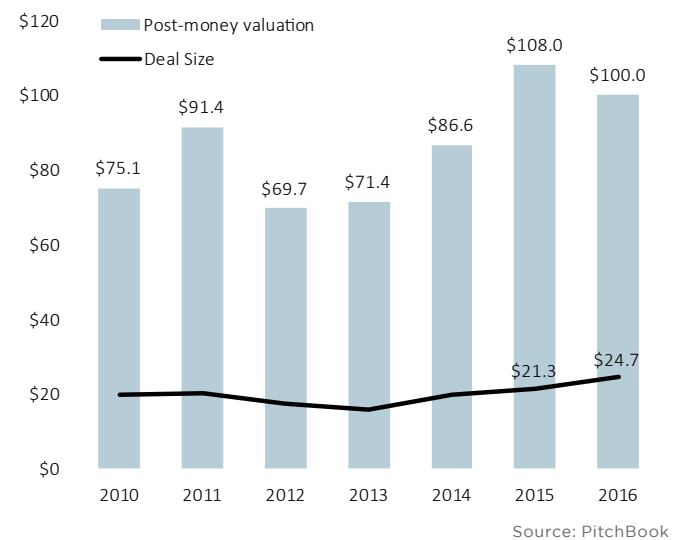
Median software Series C round size and post-money valuation (\$M) by year



Median commercial services Series C round size and post-money valuation (\$M) by year



Median pharma & biotech Series C round size and post-money valuation (\$M) by year



Select largest Series C valuations of 2016

Company	Deal size (\$M)	Post-valuation (\$M)	Date	HQ City	State	Industry
Magic Leap	\$793.5	\$4,500.0	2/2/2016	Plantation	FL	Computer hardware
Pivotal Software	\$653.0	\$3,265.0	5/9/2016	San Francisco	CA	Software development
JetSmarter	\$105.0	\$1,605.0	12/12/2016	Fort Lauderdale	FL	Software
Unity Technologies	\$181.0	\$1,500.0	7/13/2016	San Francisco	CA	Software development
Razer	\$75.0	\$1,500.0	2/23/2016	Irvine	CA	Electronic equipment

Source: PitchBook

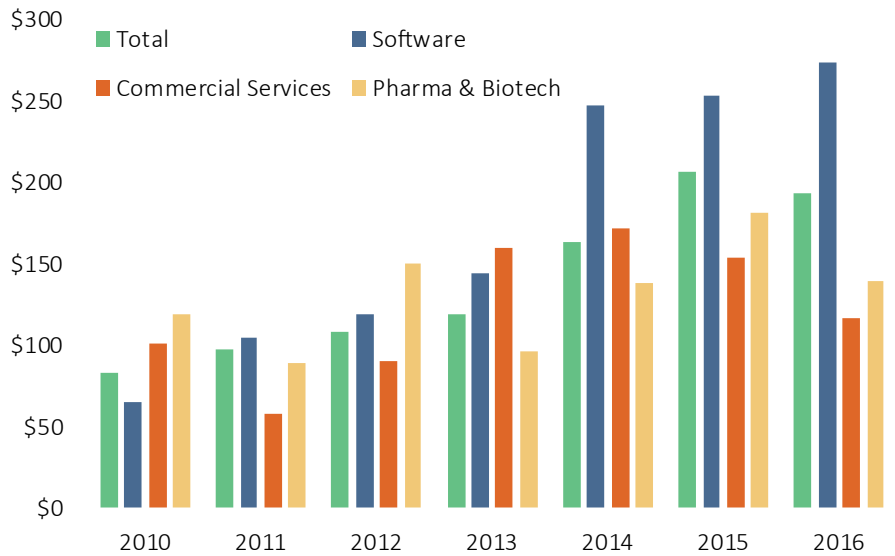
First decline in late-stage valuations since 2009

Series D and later valuations and trends

The latest stages cool off as non-trationals pull back, VCs get rational

Just 21 Series D+ deals came along with a valuation of \$1 billion or more in 2016, less than half the average of the previous two years. While this stat alone won't explain a trend at this stage, it is interesting given that median Series D+ valuations saw the only YoY decline last year, falling 7% to below \$193 million. Mutual funds and hedge funds, which had been part of many of the largest deals in 2014 and 2015, pulled back on activity by 42% and 37%, respectively. While certainly this is a notable source of capital, the fact that VC dry powder is at an all-time high lessens any negative impact entrepreneurs may feel in terms of capital availability.

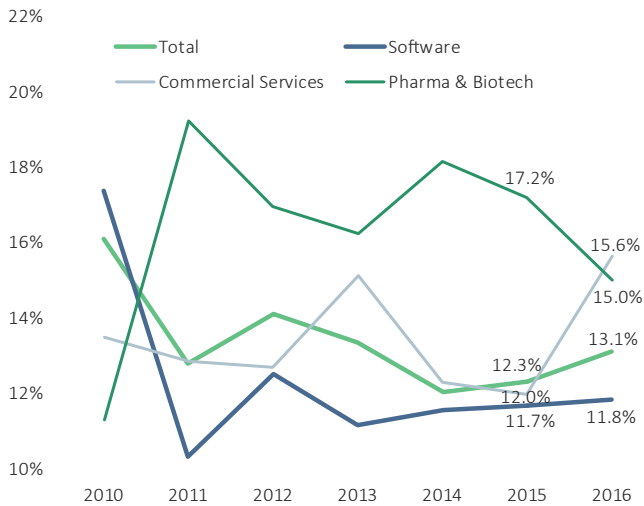
Median Series D+ post-money valuations (\$M) by sector



Source: PitchBook

Percentage acquired in pharma & biotech companies has declines as of late

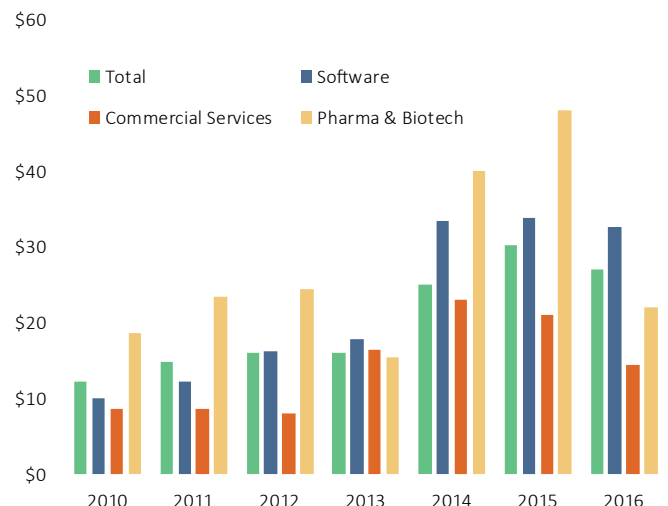
Median % acquired at Series D+ by sector



Source: PitchBook

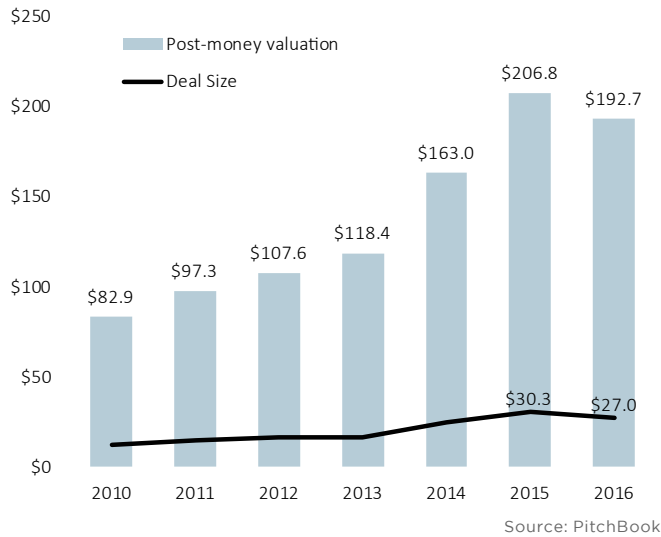
Software's march upward continues unabated, even as overall flatlines

Median Series D+ round size (\$M) by sector

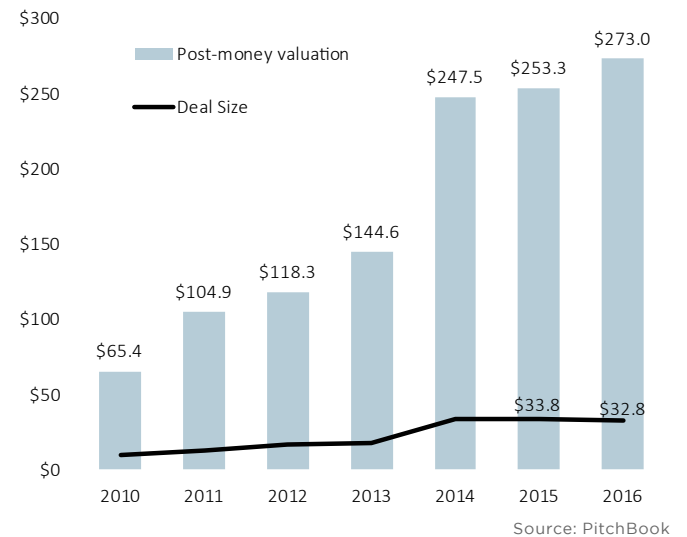


Source: PitchBook

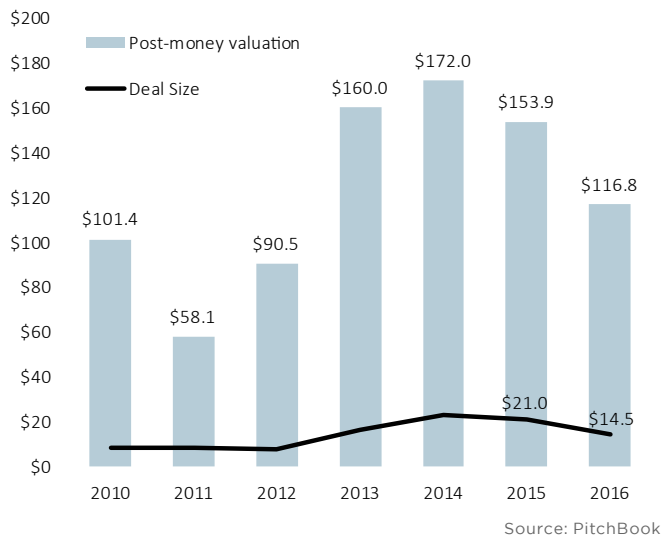
Median Series D+ round size and post-money valuation (\$M) by year



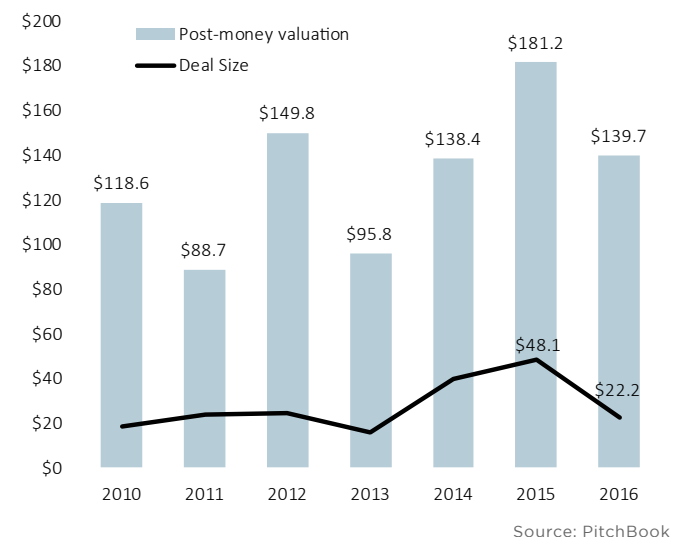
Median software Series D+ round size and post-money valuation (\$M) by year



Median commercial services Series D+ round size and post-money valuation (\$M) by year



Median pharma & biotech Series D+ round size and post-money valuation (\$M) by year



Select largest Series D+ valuations of 2016

Company	Deal size (\$M)	Post-valuation (\$M)	Date	HQ City	State	Industry
Uber	\$5,600.0	\$66,600.0	5/24/2016	San Francisco	CA	Software
Palantir Technologies	\$880.0	\$20,529.4	1/29/2016	Palo Alto	CA	Software
Snap	\$1,808.6	\$20,000.0	5/25/2016	Los Angeles	CA	Software
WeWork	\$690.0	\$16,900.0	10/12/2016	New York	NY	Real estate services
Stripe	\$150.0	\$9,200.0	11/25/2016	San Francisco	CA	Software

Source: PitchBook. Note: Uber's financings in the first half of 2016 were collated into one super round in 2Q 2016 according to PitchBook methodology.

CVC's different strategy

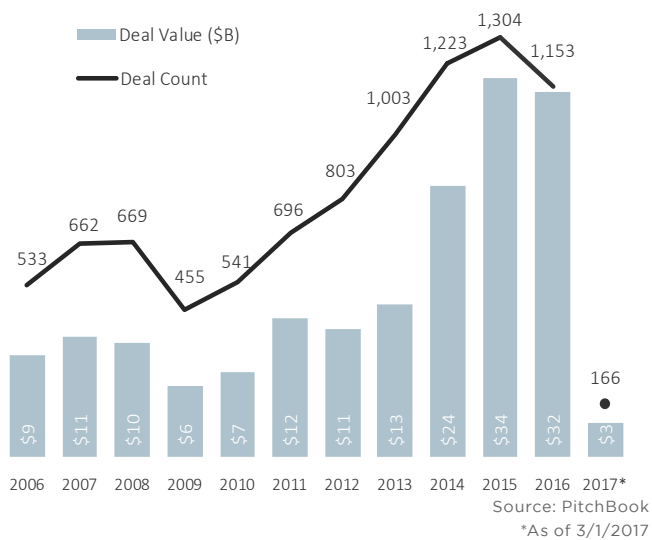
Corporate, hedge & mutual fund participation

Deals with corporate VC (CVC) participation have increased from just 455 completed in 2009 to more than 1,000 during each of the past four years. The heightened valuations of these deals has become a point of contention within the venture industry over recent years. While it may be coincidental, the distinct gap

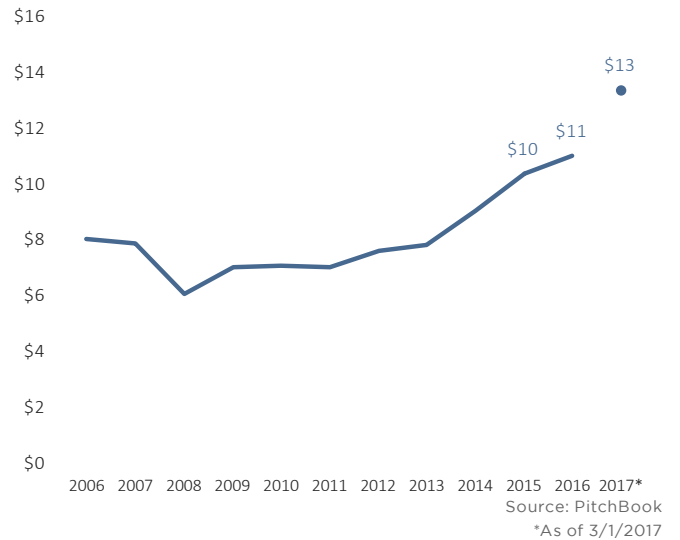
between the median valuation of VC investments with CVC participation and those without, exemplifies a fundamental difference in how CVCs are able to invest. In 2016, the median valuation of an early-stage deal with CVC involvement outpaced that of deals without by \$11 million (\$28 million compared to \$17 million), and

the spread of late-stage valuations was almost \$40 million. The strategic aspect of CVC dealmaking, along with a lower reliance on financial returns has given CVC a unique investment profile. That's not to say that financial gain is off the investors' radar, but that gain can come in several forms. For example, new technology can be the

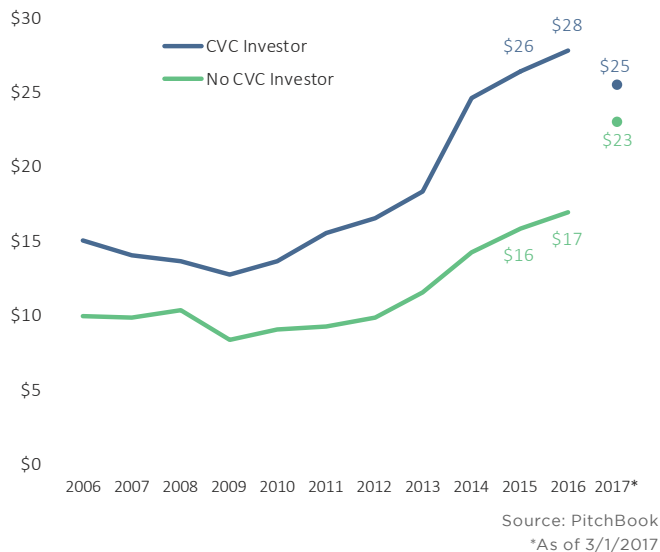
US VC activity with corporate VC participation



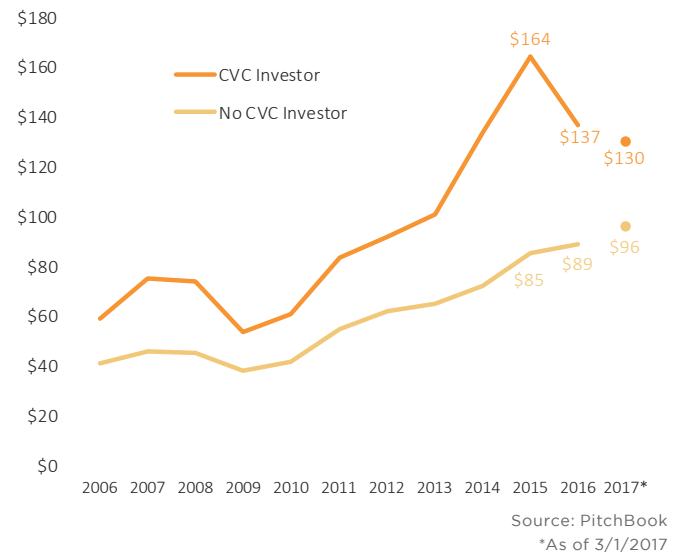
Median round size (\$M) with corporate VC participation



Median post-money valuation (\$M) of US early-stage VC rounds with corporate VC participation



Median post-money valuation (\$M) of US late-stage VC rounds with corporate VC participation

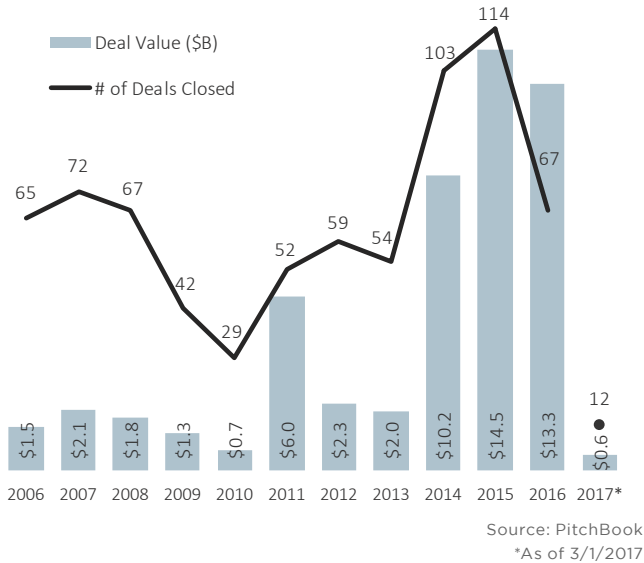


lead motivation for a CVC investment. By integrating the new technology into its core product, the investors can receive additional value from its investment not tied to a future exit. Startups can also be looked at as a potential acquisition target down the road, providing a source of inorganic growth. These unique differences in strategy leave CVCs less focused on the price of investments, and allow them to make deals at heightened valuations.

With investment goals of their own, mutual fund and hedge fund investment in venture deals boomed in 2014 and 2015. Each investor type dramatically increased their exposure to the asset class, in most occasions being a cornerstone investor in a “private IPO” for a unicorn. This fact alone skews any analysis between investments with mutual or hedge fund participation with that of more traditional VCs simply because investments by these investors were almost exclusively limited to the largest deals of their respective years.

In 2016, however, the activity of both mutual and hedge funds in VC declined by 42% and 37%, respectively. The quick turnaround from investment to IPO that many of these investors had envisioned took a hit when the exit market for VC-backed companies dramatically slowed toward the end of 2015 and on through 2016. With money being pulled out of hedge and mutual funds at the highest clip in some time due to lackluster returns, these “tourist” investors have pivoted back to their core strategies for the time being.

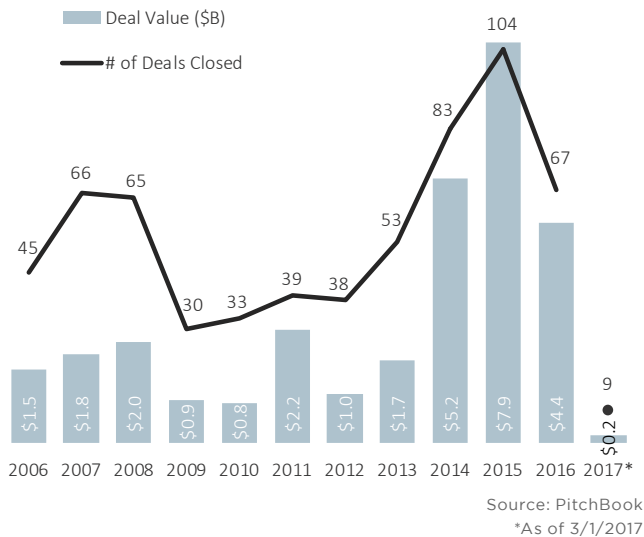
US VC activity with mutual fund participation



Median US round size (\$M) with mutual fund participation



US VC activity with hedge fund participation



Median US round size (\$M) with hedge fund participation



Venture timeline lengthens

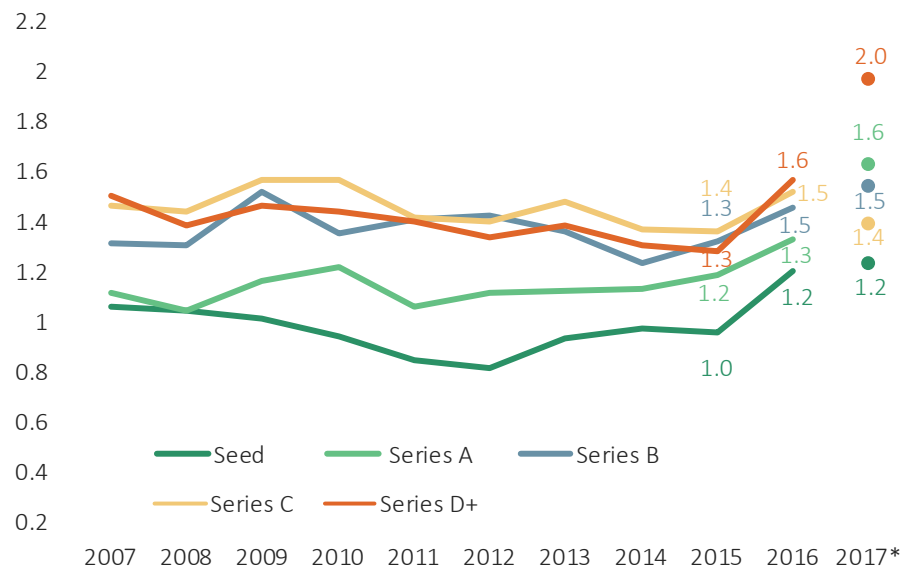
Valuation step-ups, changes and time between rounds

Median valuation step-ups dropped slightly in 2016, falling back to roughly the decade average for both early stage and late-stage financings of 1.6x and 1.3x, respectively. To be fair, a 60% jump in a given valuation step-up at the early stage is still very strong, though comparing it to the 80% multiple from 2014 may make it seem more nominal. As valuations begin to plateau at later stages, the increase in private valuations realized in recent years will take its effect on step-ups moving forward. Still, 75% of companies have raised subsequent rounds with a higher post-valuation than their previous raise, the highest proportion we have tracked in the past decade. The grow at all costs mentality that pervaded VC over the past few years has begun to change. The focus that founders and investors seemed to put on valuation in recent years is moving toward more rational focus on business metrics and capital needs.

Lastly, down rounds have become an only slightly more common occurrence than in 2014 when they comprised just over 10% of transactions, the lowest proportion

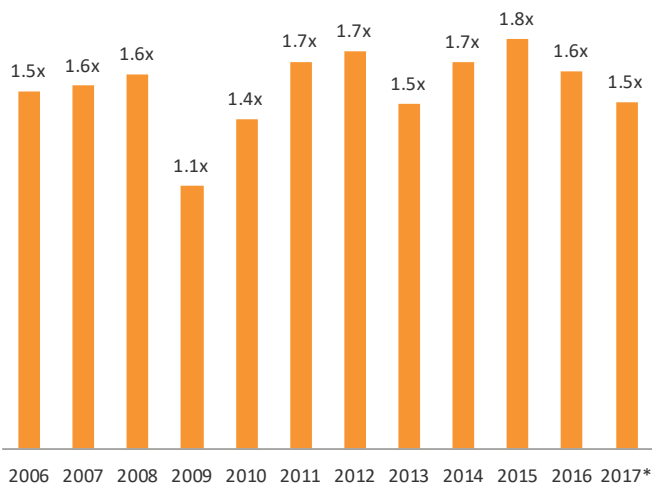
since at least 2006. But when compared to years in the past decade, the overall percentage of down rounds in 2016, and even flat rounds, is still relatively low at 14%.

Median time (years) between US VC rounds



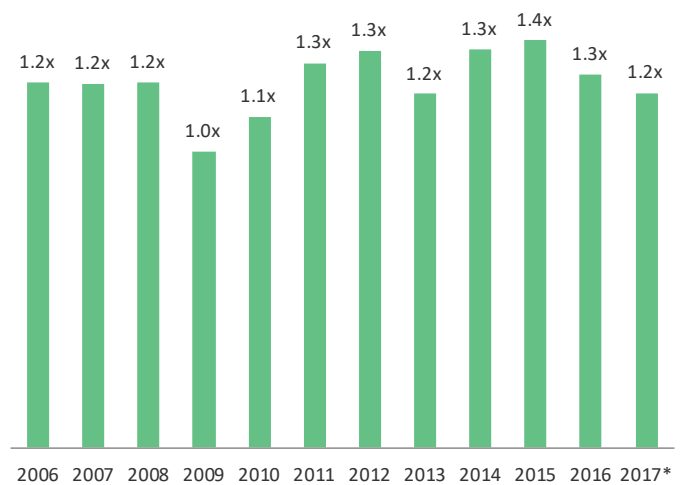
Source: PitchBook
*As of 3/1/2017

Median early-stage round step-ups by year in US



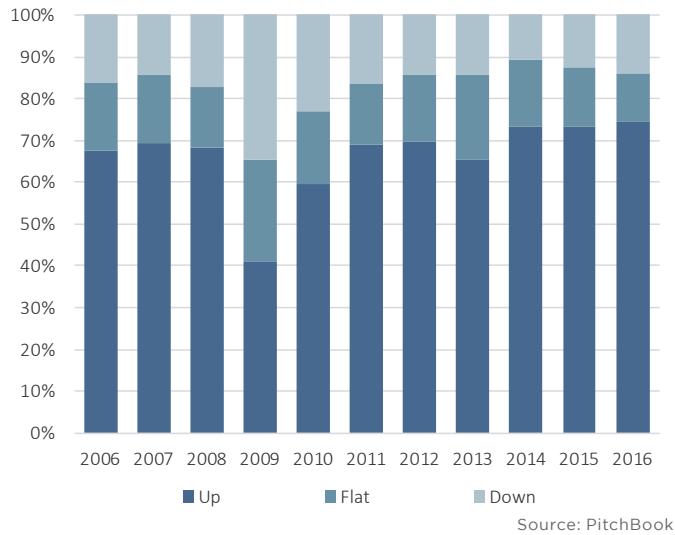
Source: PitchBook
*As of 3/1/2017

Median late-stage round step-ups by year in US



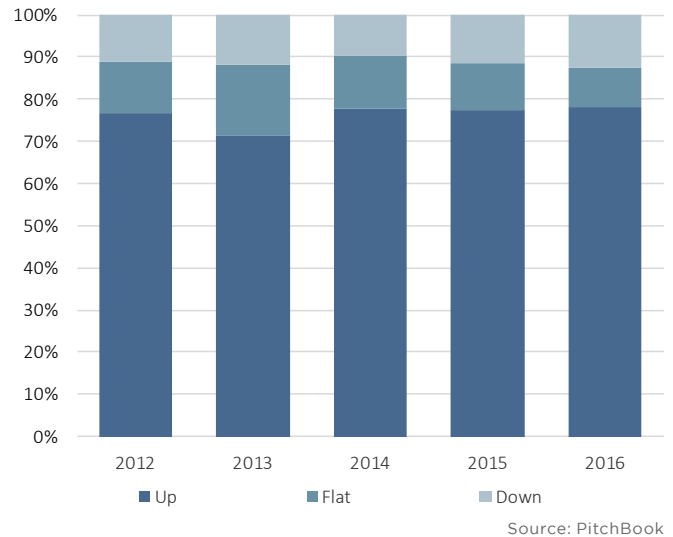
Source: PitchBook
*As of 3/1/2017

All up, flat or down rounds (#) by year



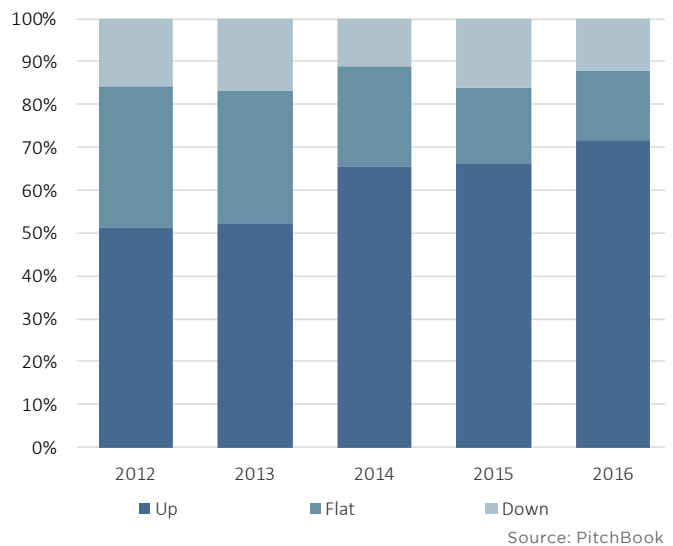
While down rounds increased to 13% of deals in 2016, that proportion is still low when compared historically

Software up, flat or down rounds (#) by year

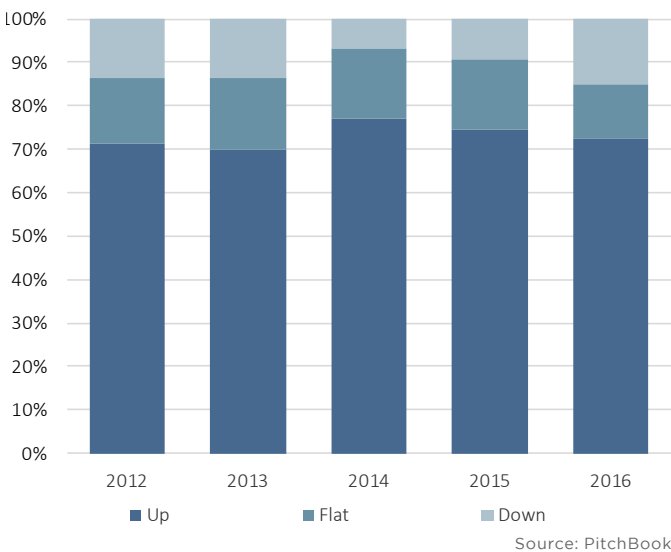


The proportion of 2016 pharma & biotech rounds with increased valuation was the highest we have tracked

Pharma & biotech up, flat or down rounds (#) by year



Commercial Services up, flat or down rounds (#) by year



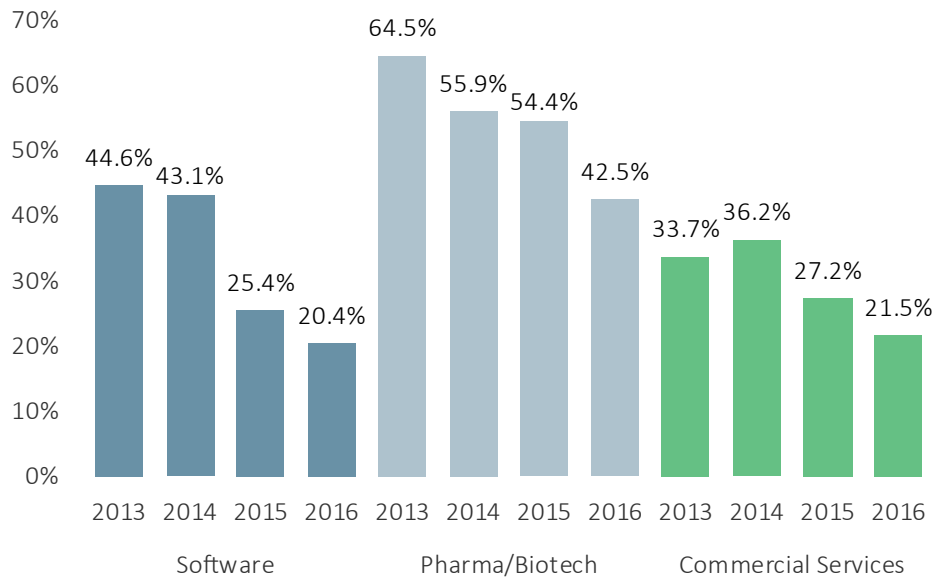
Note: Up, flat or down rounds are calculated using a combination of comparing share price and the pre and post valuations of previous and current rounds, e.g. if the price per share in the most recent round was the same as in the prior financing OR the post value of the old round is the same as the new round, then that would be classified as a flat round.

Still founder-friendly?

Liquidation participation

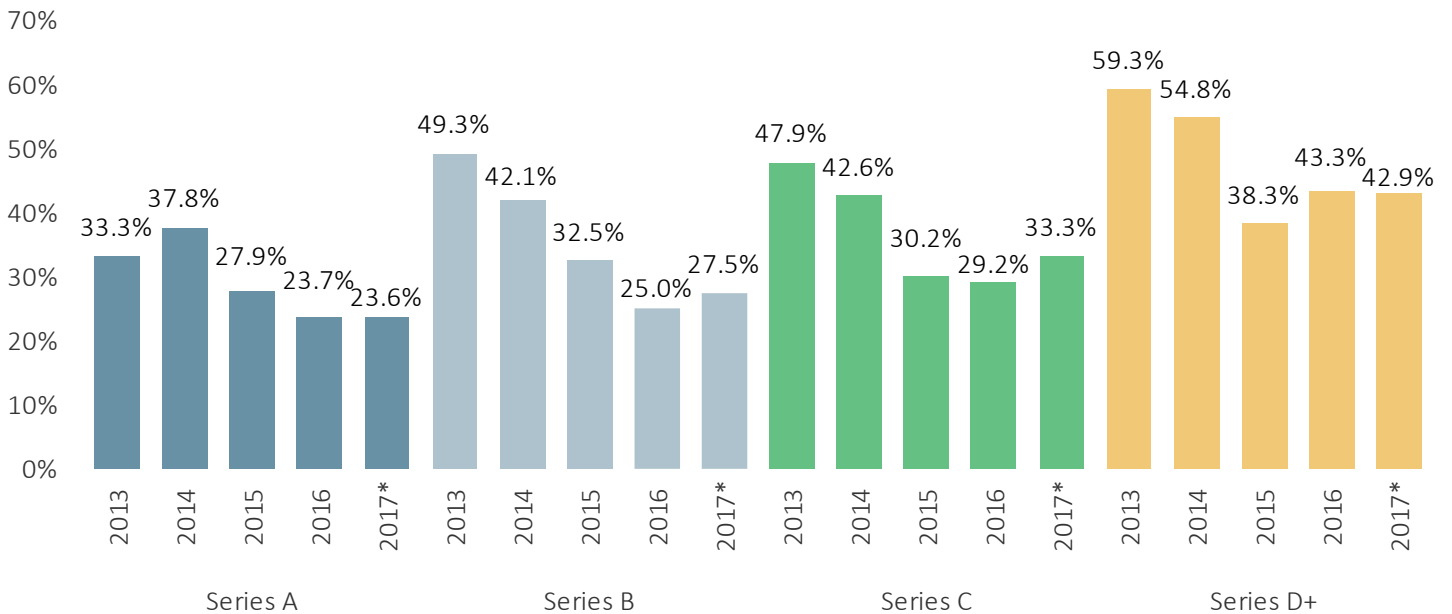
Participation rates have steadily decreased in venture financings at every stage over the past few years, moving the venture industry into a more founder-friendly territory than it had been even five years ago. While we have seen investors take slightly larger stakes in each round during the last two years, the drop in participating terms, either capped or uncapped, has set up founders to keep better control over their eventual payout, as long as they can continue moving the company forward on schedule. As investors exercise more scrutiny over the companies they back, a negotiating piece they might be able to use to earn a spot at the table with the best companies could be a willingness to defer participation.

Liquidation participation by series in US VC rounds



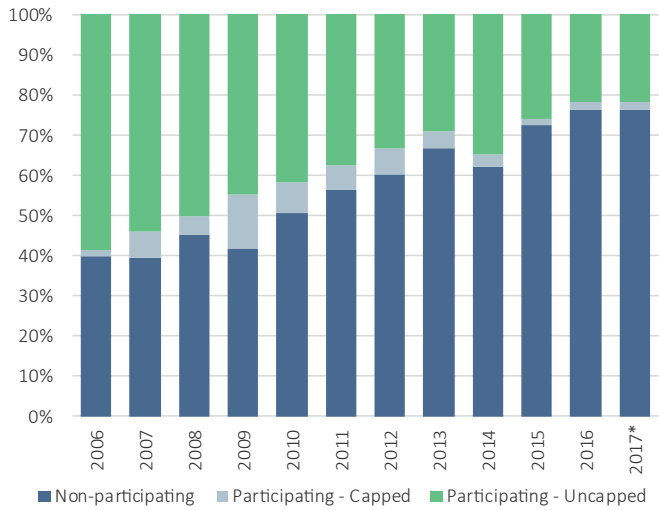
Source: PitchBook

Liquidation participation by series in US VC rounds



Source: PitchBook
*As of 3/1/2017

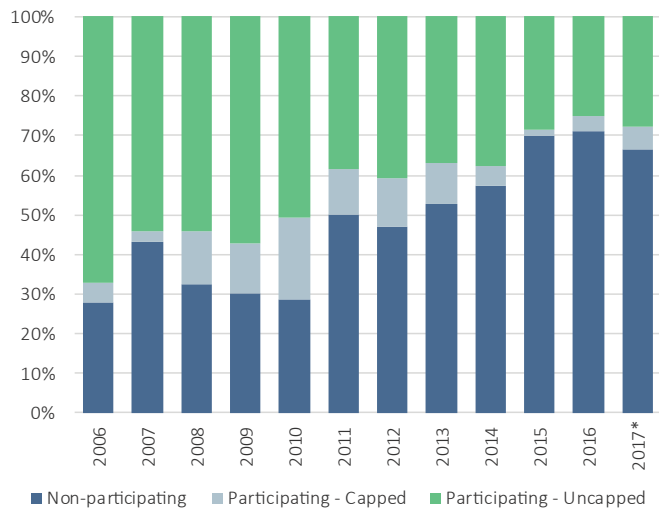
Series A liquidation participation in US



Source: PitchBook
*As of 3/1/2017

Uncapped participation terms included in Series D+ rounds fell to the lowest proportion in over a decade

Series C liquidation participation in US

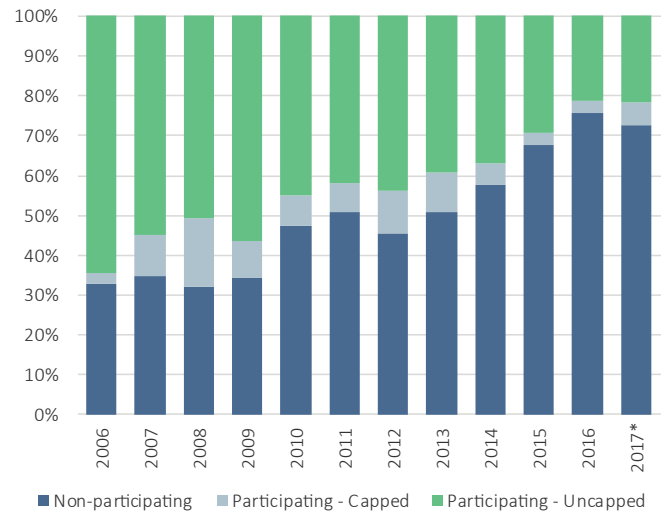


Source: PitchBook
*As of 3/1/2017

The key distinction between participating preferred stock and non-participating preferred is that in the former, holders not only get their investment back but also share with the common stock on an as-converted basis in any remaining available deal proceeds, while in the latter, investors get either their investment amount back plus an accrued dividend if applicable or their pro rata share based on common stock, whichever is greater.

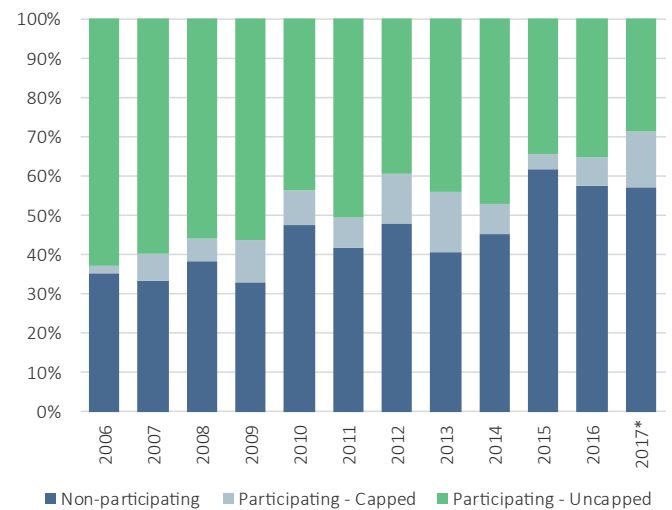
Participating liquidation preferences have fallen steadily across VC over recent years

Series B liquidation participation in US



Source: PitchBook
*As of 3/1/2017

Series D+ liquidation participation in US



Source: PitchBook
*As of 3/1/2017

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pre-money valuations,
cap tables,
series terms,
custom search,
growth metrics.

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