

Searching for Validation

An analysis of valuation performance for \$1 billion+ VC-backed exits

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Key takeaways

- The median valuation step-up for billion-dollar-plus VC exits over their last private post-money valuation has remained over 1.8x since 2010. Only five of these exits were down valuations, a mere 4.9% of known values. This compares favorably to exits under \$1 billion where down exits made up 27.1% of liquidity events for which we have step-up data.
- Although step-ups have been broadly positive, we've recorded a downward trend in the magnitude of step-ups since 2015 corresponding with the steep increase of late-stage VC valuations. This contraction reinforces the assertion that value creation is increasingly occurring in the private, rather than public, markets.
- The IPO pop has been crucial for the returns of billion-dollar-plus offerings. Measuring public market performance from the offer price paints an optimistic picture, but we see more negative median returns when basing the calculation on the first trade.

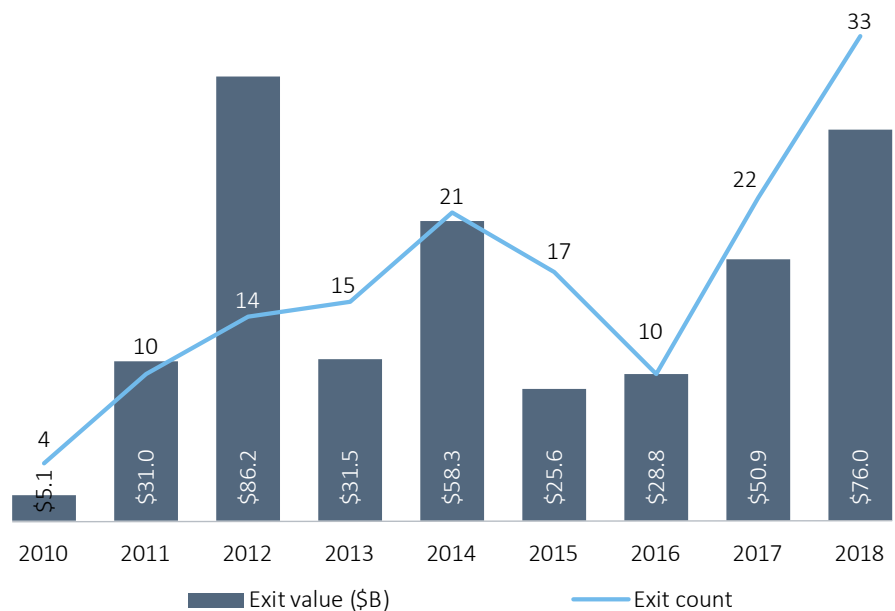
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Introduction

Billion-dollar-plus VC-backed exits were once quite rare, but the maturation of the market and subsequent explosion of mega-deals (\$100 million+) have necessitated larger exits. In the wake of 2018's record year for billion-dollar-plus exits, and in anticipation of another noteworthy year for outsized exits, we think it is important to analyze how investors have fared in these massive liquidity events. The sheer aggregate value of the companies planning to go public in 2019 represents a potential milestone for the VC ecosystem and provides a huge pool of capital being distributed to LPs for potential reinvestment into the space.

\$1 billion+ US VC exit activity



Source: PitchBook

So how did we get here? Increasingly large allocations to VC from traditional participants, such as pensions and endowments, have enabled fund sizes to grow several magnitudes larger than the historical average. While traditional funds have swelled, a flood of new entrants including large sovereign wealth funds and, perhaps most notably, SoftBank, have driven the market into a new paradigm of capital availability, especially at the late stage. The median VC fund size hit \$226.5 million in 2018 in response to the growth of valuations and deal sizes, which makes these large exits even more critical in achieving expected returns (e.g. a GP would need 22.7% ownership interest in a \$1 billion exit to return the median VC fund with one investment).

Plentiful capital and regulatory changes have been major catalysts behind companies delaying exits far past historical averages. Most notably perhaps was the elimination of the 500-shareholder rule by the JOBS Act, a key factor behind Google's IPO in 2004, which has allowed companies such as Facebook, Uber, and many others more control over their path to the public markets. VC remains a more expensive source of funds for companies based on the higher-risk nature of the securities and associated cost of capital. However, the benefits and perceived freedom of operating in the private markets continue to be attractive conditions for many VC-backed companies.

One of the most contentious issues swirling around the mega-deal phenomenon is whether lofty private market valuations will be validated by acquirers or the public markets. The historical performance of billion-dollar-plus exits can't directly predict what will happen in 2019 and beyond, given the constantly shifting economic and political climate. However, we believe this analysis should provide insight into the late-stage investment process and offer a sense of potential outcomes when these companies reach an exit event. It's also key to highlight the context of buoyant macroeconomic conditions and strong public equity markets over the last decade, which have likely skewed returns positively.

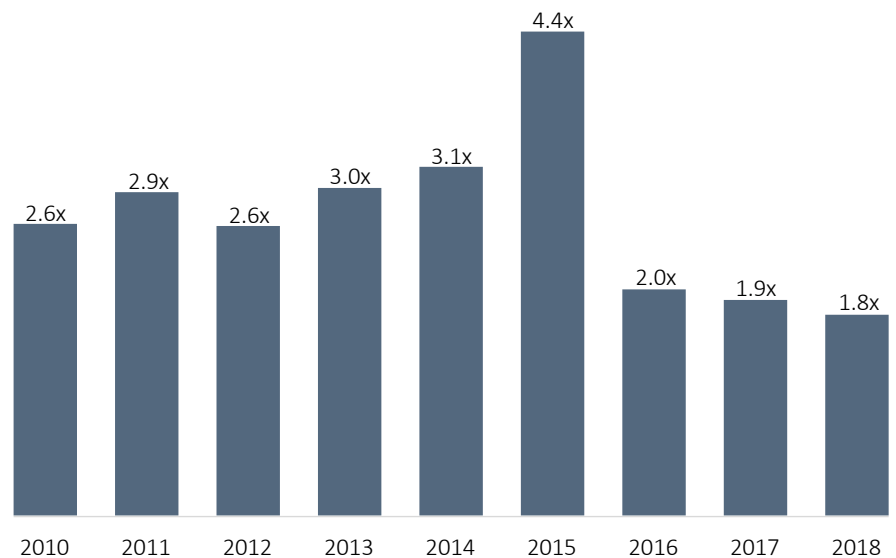
Much of the uncertainty surrounding the unicorn market lingers, given that these companies haven't experienced a recessionary period. The response of market participants and general availability of liquidity whenever the cycle rolls over will be the true test for this market. In this note, we will look at valuation step-ups at exit for all billion-dollar-plus exits to assess overvaluation in the private markets as well as public market returns for the IPOs in the dataset to address the long-term defensibility of their valuations. We then break the group of companies down further to see the effect of the end customer (enterprise vs. consumer), sector of operation (tech vs. non-tech), and profitability on the step-up and public market return metrics.

A look at the data

Concerns regarding the increased sums invested in VC-backed companies have been centered on high-profile down exits and broader struggles to find liquidity, but the data paints a different picture. Since 2010, we've recorded 147 VC exits at a post-money valuation over \$1 billion, with an acceleration

over the last two years. This sends an encouraging signal about the currently available liquidity for the most highly valued companies in the VC market. More importantly, the median step-up of valuation at exit over the last private post-money valuation has been consistently positive over the time horizon, with only five billion-dollar-plus exits at a down valuation, a mere 4.9% of the known values. This compares favorably to exits under \$1 billion where down exits made up 27.1% of exit events for which we have step-up data. Although VC failures tend to go underreported (which could skew numbers upward), it seems that these large exits have shown more stability against their private valuations. The median step-up multiple at exit of 2.3x over the time horizon paints an encouraging picture; however, this multiple has trended lower since 2015.

Median US VC valuation step-up multiple at exit



Source: PitchBook

This downward trend in step-ups coincides with the current climb in VC valuations, which has been especially steep for late-stage businesses. We expect a similar slightly negative trajectory for step-ups going forward as valuations show no signs of reversing in the short term. This contraction in multiples also reinforces the claim that value creation is increasingly occurring in the private, rather than public, markets.

To investigate how billion-dollar-plus exits have fared over the longer term, we analyzed public market performance data for the IPOs in the sample since 2010. The data shows the returns since each company's IPO date on an absolute or annualized

basis and then grouped by year of IPO. Looking at the full group, we see variability in the annualized stock price returns, but all the medians besides 2011 are positive. However, as opposed to valuation step-up at exit, there have been more headwinds over the long term. The annualized return medians are mainly positive, but that still leaves the half of the group that comes in below that figure. In fact, out of the 77 IPOs over \$1 billion post-money valuation, there are only marginally more positive absolute returns since listing publicly than there are negative.

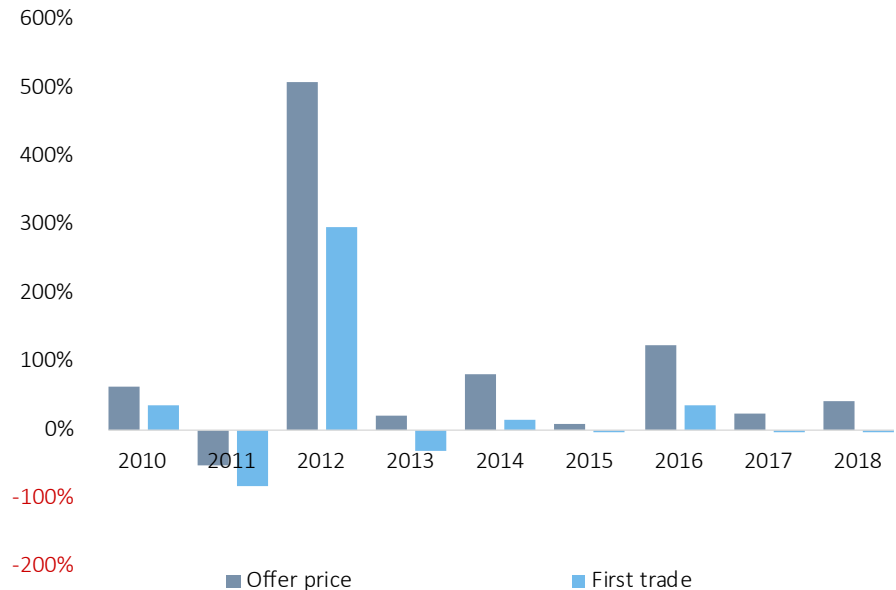
Median CAGR of \$1 billion+ US VC IPOs based on offer price and first trade



Source: PitchBook

The IPO pop has been crucial for the returns of billion-dollar-plus offerings. The accompanying charts show the difference in both absolute and annualized returns when calculated with the IPO offer price versus the first trade, the price that is available to retail investors. Measuring from the offer price represents the reality of institutional investors that received an allocation in the offering, but when basing the calculation on the first trade, we see negative median returns. This discrepancy can be seen in the accompanying charts, showing the value captured by investors with the ability to secure high-profile IPO allocations.

Median absolute return for \$1 billion+ US VC IPOs based on offer price and first trade



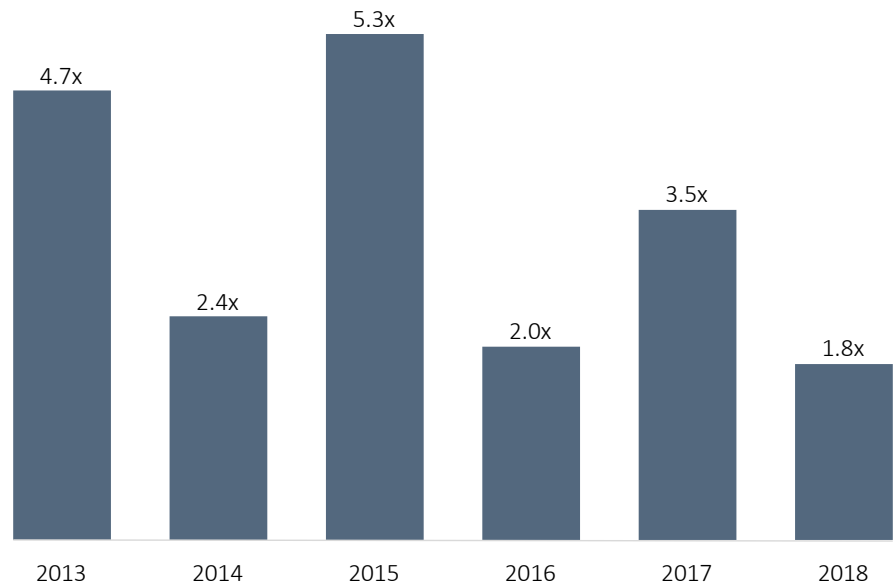
Source: PitchBook

Examining the last few years of VC-backed IPO volume, 2017 and 2018 listings benefited from an open IPO window as public market investors welcomed a wave of technology listings after a pronounced drought. Performance from this group has been relatively muted, with some late 2018 IPOs posting strong partial year returns, skewing the annualized return statistics higher. The performance of these companies as they become more tenured in the public markets will be data points to watch in 2019 with the backdrop of uncertain public equity performance and the potential surge of billion-dollar-plus IPOs/exits.

End customer

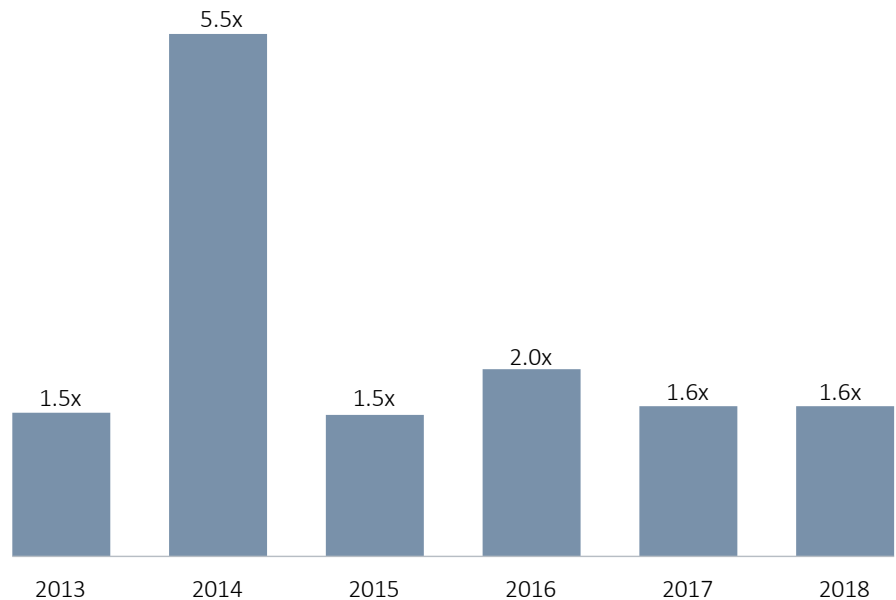
For the first slice of the dataset, we've delineated end users by enterprise or consumer applications. These two approaches lead to vastly different market sizes and require significantly distinct customer-acquisition processes, which has resulted in valuation differences.

These disparities can be seen in the step-up data, for example, where step-ups at exits have been significantly higher for the enterprise-focused companies. We believe this may be due to some undervaluation of enterprise-focused companies early in the time horizon relative to skyrocketing valuations for consumer-focused companies. The gap between the two groups has narrowed in recent years, implying a fading of this factor's effect.

Median step-up at exit for US VC enterprise-focused companies

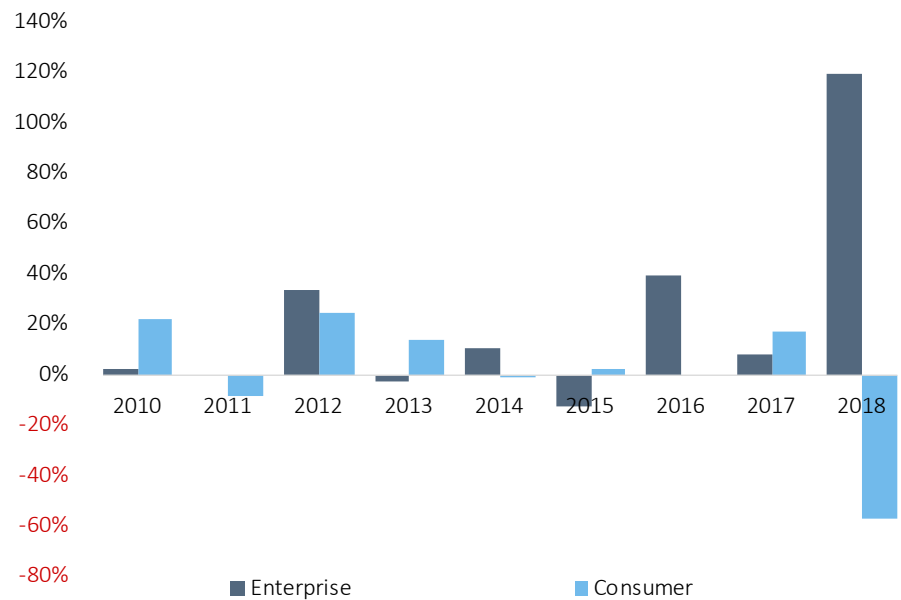
Source: PitchBook

Further explanation of this discrepancy is likely a function of strong demand from buyers for and investors in enterprise-focused businesses. Acquisitions are a more common deal type in the enterprise space, with arguably a larger pool of potential acquirers and therefore more competition elevating premiums paid for these businesses. It is also important to note that the enterprise tag encompasses most of the biotech and healthcare companies in the dataset, including some of the outliers that may have contributed to the higher step-up multiples.

Median step-up at exit for US VC consumer-focused companies

Source: PitchBook

Median CAGR of \$1 billion+ US VC enterprise and consumer IPOs



Source: PitchBook

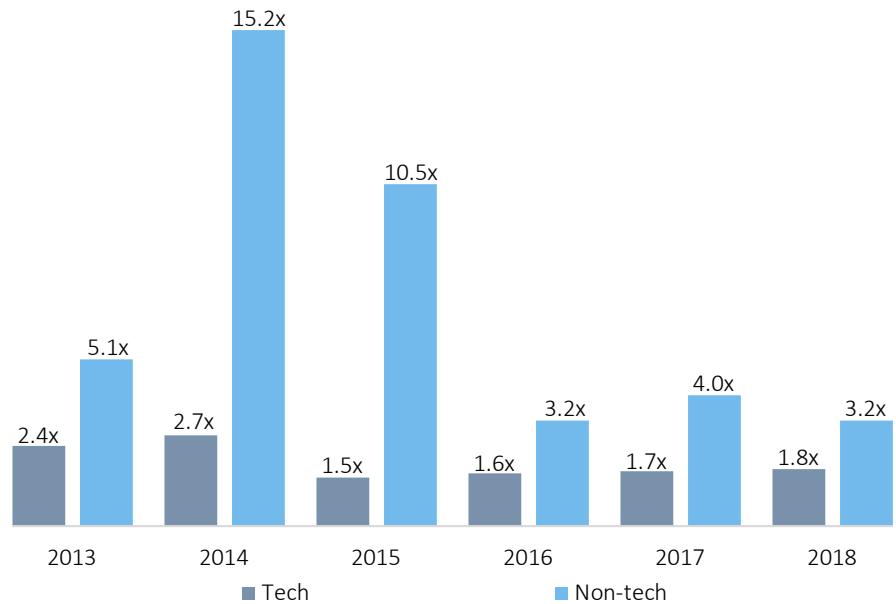
Enterprise-focused billion-dollar-plus IPOs have slightly outperformed their consumer counterparts post-exit, although the consumer group has been more stable. The divergence in 2018 can be attributed to the annualization calculation's amplification of returns in periods under a year on both the positive and negative side. The 2018 data points should converge closer to zero as this effect dissipates once a full year of data is available for those IPOs. This public market underperformance by consumer companies also further supports the assertion that those companies have been valued more fully by the private markets. Given the successes with enterprise-focused companies and the proliferation of these businesses on the software side, we expect the discrepancies between the two groups due to this factor should begin to diminish.

Sector of operation

Business models and operational strategies are another area where we see a great deal of variability in the data that can benefit from additional categorization. Due to the pervading dominance of tech within the venture ecosystem, we split the sample into tech and non-tech buckets. Logically, this also means that tech is the larger of the two groups and displays steadier trends in valuation step-ups. The non-tech group is subject to healthcare outliers and smaller sample sizes, resulting in higher step-ups than technology across the board.

The differing funding patterns of the sectors are evident here, as billion-dollar-plus exits occurring after minimal funding are far more common in the biotech space, unlike the typical path of a technology startup.

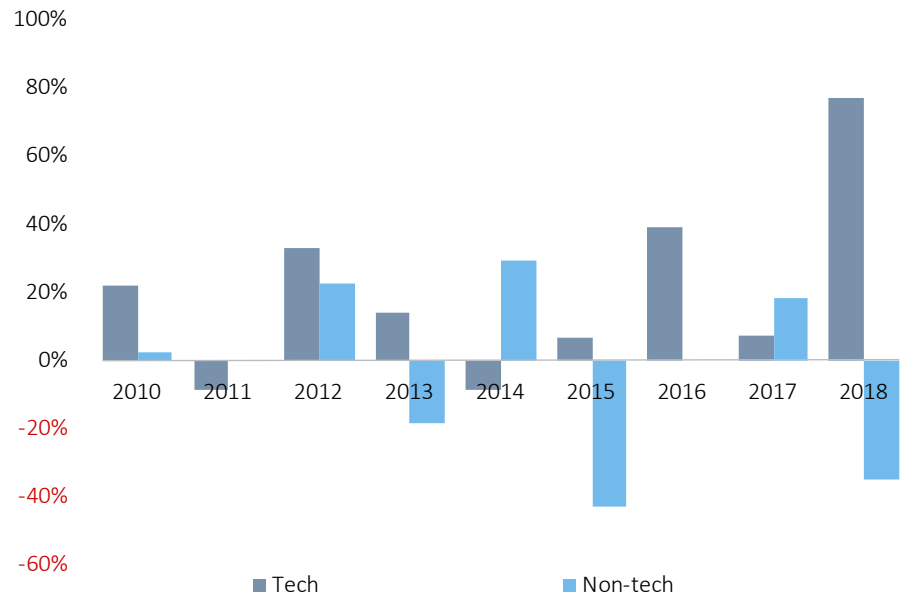
Median step-up at exit for US VC tech and non-tech companies



Source: PitchBook

Despite lower absolute multiples, technology step-ups are riding an uptrend over the last three years, opposite of the full dataset. With continually rising private tech valuations, this data suggests increased demand for these businesses from acquirers and public market investors. This is likely an effect of corporations' need to keep pace with innovation and enhance technology offerings in tandem with investors' search for growth during the extended low-rate environment. The continuation of this positive trajectory in valuation step-ups going forward will be important to watch as a gauge of health within the market. As technology takes more market share of the whole VC ecosystem, maintaining an aggregate multiple over 1.0x will be crucial to drive continued investment. Increasing pressure from rising valuations is unlikely to subside before a large-scale recessionary event, but currently it seems like demand for these deals is the more impactful piece of the equation.

Median CAGR of \$1 billion+ US VC tech and non-tech IPOs



Source: PitchBook

The annualized public market performance by the technology group has been more consistent, posting only two negative years (2011, 2014) since 2010 and outperforming the non-tech group (almost all biotech companies) most years of the sample. Consequently, while the technology bucket lagged with valuation step-ups, these businesses have defended and delivered on their valuations more often than the non-tech bucket. We would attribute much of this extended outperformance to public market sentiment around technology companies over this time period. Investor demand for technology and growth in general during this recovery has been a major boon for the price performance of the companies in this sector. The relative scarcity of technology IPOs since 2010 also likely drove demand for those companies that did list publicly. As technology continues to become more integral in everyday life for businesses and consumers, we would expect this relationship to continue.

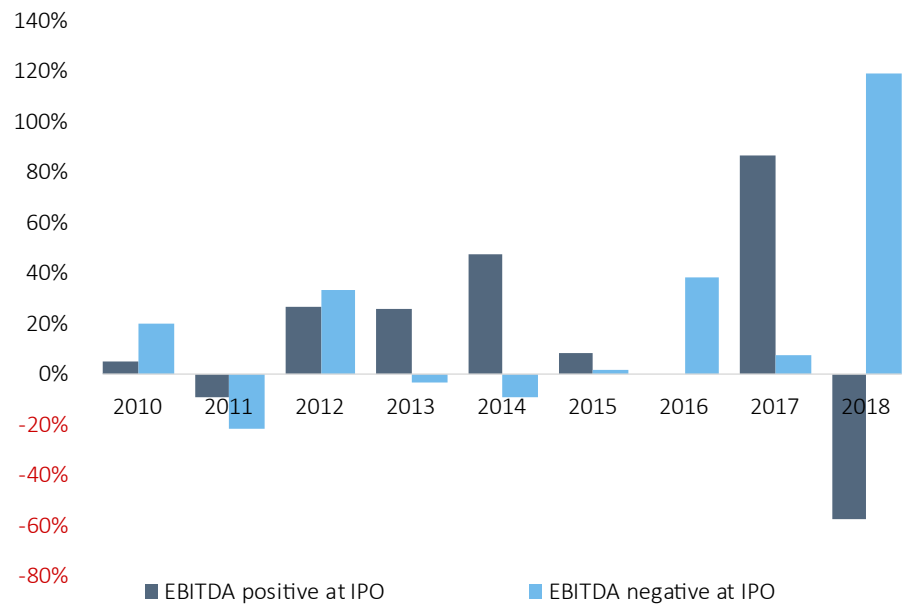
Profitability

To examine whether the financial operations of these businesses have an effect on exit performance, we pulled profitability metrics to bucket the companies this way. Predictably, a high percentage (64.3%) of the company set is unprofitable on an EBITDA basis given the companies' stage in the life cycle and common prioritization of growth

over profitability. Of course, this is also an outcome of the plentiful capital regime that has categorized this bull run, enabling relatively easy fundraising to offset high cash burn. Expectedly, performance after the IPO has slightly favored the money-making companies. However, the money-losing companies have also seen success, a phenomenon we attribute to how public market investors have adapted to the current ecosystem. To allow for businesses to scale, there has been increasing willingness to accept negative to minimal cash flows for longer time periods; however, that puts more pressure on the future cash flows in validating value.

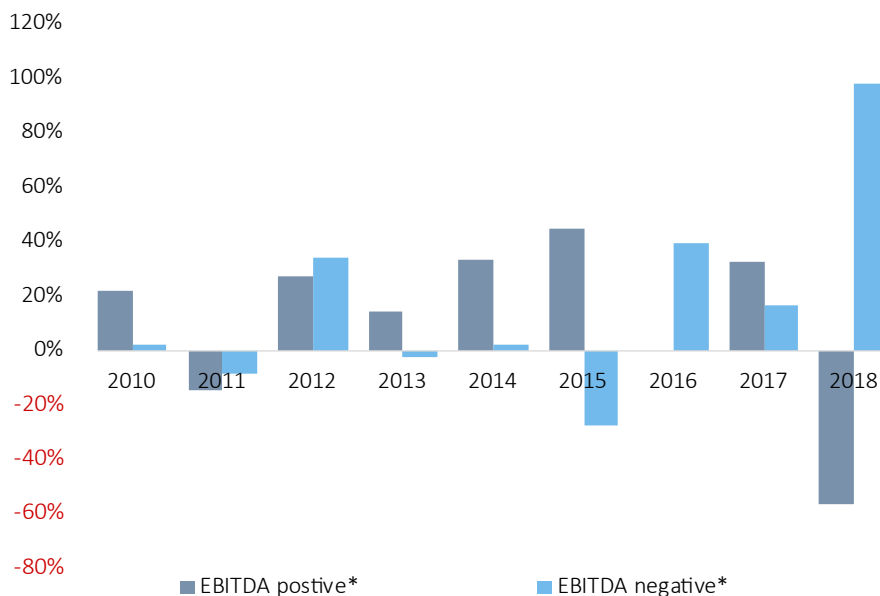
Note that, given that the data is skewed toward unprofitable companies, the profitable bucket suffers from low sample sizes. This reality needs to be considered when drawing conclusions given this bucket's statistics are heavily weighted on those individual companies.

Median CAGR of US VC companies grouped by EBITDA margin at time of IPO



Source: PitchBook

Median CAGR of US VC companies grouped by EBITDA margin



Source: PitchBook
*As of March 12, 2019

Conclusion

From this initial look, it seems that, so far, the exit market has validated the elevated valuations in the private markets for existing stakeholders and institutional investors. This has been corroborated by positive valuation step-ups at exit since 2010 and the almost complete lack of down exits of over \$1 billion. A similar story is being told about longer-term valuation defensibility via the stock price performance. The price returns were influenced positively by the value capture from the IPO pop for institutional investors as well as the selection of enterprise-focused, technology-centric, and profitable companies.

Looking forward, we believe these large exits will become only more important in generating returns for VC investors as fund sizes swell and as capital pours into the strategy. To achieve this, there must be continued ability to find buyers of billion-dollar-plus VC-backed businesses via acquisition or public markets. Liquidity at this stage of the market will be the critical factor in the persistence of many of these trends. With uncertainty in the economic environment and in public investor sentiment, there is a possibility of drastic changes in the overall count of billion-dollar-plus exits as well as the valuation multiples that these businesses receive at exit.