LAW360

Portfolio Media. Inc. | 111 West 19th Street, 5th Floor | New York, NY 10011 | www.law360.com
Phone: +1 646 783 7100 | Fax: +1 646 783 7161 | customerservice@law360.com

Why Private VC-Backed Cos. Need A New Valuation Method

By **Ilya Strebulaev and Manuel Vasconcelos**
(July 1, 2022, 4:09 PM EDT)

Ilya Strebulaev

Manuel Vasconcelos

Valuation of privately held companies can be challenging, especially when those companies are growing rapidly and involve new technologies and markets.

In contrast to publicly traded companies, there is no readily available market price, and using commonly accepted methodologies such as discounted cash flow or multiples valuation may be difficult due to lack of financial information and/or appropriate comparables.

Instead, market participants often rely on the so-called post-money valuation, which is calculated by taking the price per share paid in a given external financing round and multiplying it by the total number of shares outstanding, on a fully diluted basis, of the company being valued.

However, this methodology is not appropriate for the vast majority of venture capital-backed firms because these firms typically issue different classes of stock. These classes of stock can have substantially different values depending on the way they are structured and on their rights and preferences.

Assuming that all shares are worth as much as those issued in the latest external financing round can result in a substantial overvaluation of the company because investors typically receive convertible preferred shares while founders and employees receive common shares or options on common shares.

In addition, the most recent investors often receive the most favorable terms compared to investors in earlier funding rounds. A 2020 study by Will Gornall and Ilya Strebulaev, one of the authors of this article, found that in a sample of 135 U.S. unicorns, the use of post-money valuation resulted in an average overvaluation of approximately 48%, with almost half of those companies losing their unicorn status when an appropriate valuation methodology was used.[1]

Accurate valuation estimates are likely to become central in an increased number of disputes in the next few years for at least two reasons.

First, the number of highly valued venture capital-backed companies has been steadily increasing as

more of these companies stay private longer. For example, 2021 alone, 340 companies in the U.S. became unicorns, according to research firm PitchBook.

Second, there have been signs of a significant cool-off in private markets more recently amid increasing volatility, dampening the high valuations reached in years prior.

Growing Importance of Venture Capital Financing and Potential for Disputes Related to Valuation

Venture capital plays a central role in the financing of innovation and high-growth companies in the U.S.

Recent research shows that venture capital-backed companies account for 41% of total U.S. market capitalization and include some of the largest public companies in the world such as Microsoft Corp., Amazon.com Inc., Alphabet Inc., Meta Platforms Inc. and Tesla Inc.[2]

Venture capital financing has grown substantially over the last 15 years and, together with the growth of other private capital sources,[3] has enabled companies to remain private for longer.[4] As the venture capital market grew, it attracted the attention of a broader set of investors than what was historically the case, including mutual funds and individual investors.

Disputes involving venture capital investors and other stakeholders — including limited partners, entrepreneurs, lenders, competitors and tax authorities, among others — often center around the valuation of a company at the time of a round of financing.

Using post-money valuations in such cases is usually inappropriate; instead, a methodology that appropriately accounts for the complexity in the capital structure of venture capital-backed firms is required.

The Gornall-Strebulaev Methodology

Gornall and Strebulaev developed a valuation methodology that explicitly models the features of each class of stock issued by a venture capital-backed firm, thereby allowing for the recovery of an accurate estimate of the company's value from the fair price of one class of stock.[5]

As noted above, the methodology requires a fair price for at least one of the series of stock issued by a venture capital-backed company. This fair price is often taken to be the price in an investment by informed, sophistical, independent parties — such as venture capital funds — typically as part of an external financing round.

The intuition behind the methodology is that the value of a company at the time it raises external financing should be consistent with the price and terms of such financing.

Armed with the fair price of a class of stock, this methodology relies on a state-of-the-art option pricing methodology to model the expected payoff of the different classes of stock issued by a venture capital-backed firm at the time of exit, via liquidation, mergers and acquisitions, or an IPO.

Crucially, the methodology allows for substantial flexibility in incorporating the payout structures and

rights of each class of stock, arriving at an implied fair valuation of the company as a whole and for each class of stock.[6]

Preferred Convertible Stock

Venture capital-backed firms typically issue a new series of preferred convertible stock with each new round of outside financing. Preferred convertible stock issued by private firms is very different from the common or preferred equity issued by companies that are listed on public exchanges.

In particular, preferred convertible stock has:

- A liquidation preference, meaning that in case of liquidation of the company, its holders have priority over other investors in receiving a payout, which is typically the dollar amount they invested; and

- An option to convert into common stock, allowing the holders to benefit from increases in the equity value of the company.

In most cases, conversion into common stock may also be forced by the company if there is an IPO meeting certain criteria.

The new methodology can account for the liquidation preference and conversion rights of convertible preferred stock issued by venture capital-backed firms. Importantly, it can also account for other features that are commonly observed in convertible preferred stock series.

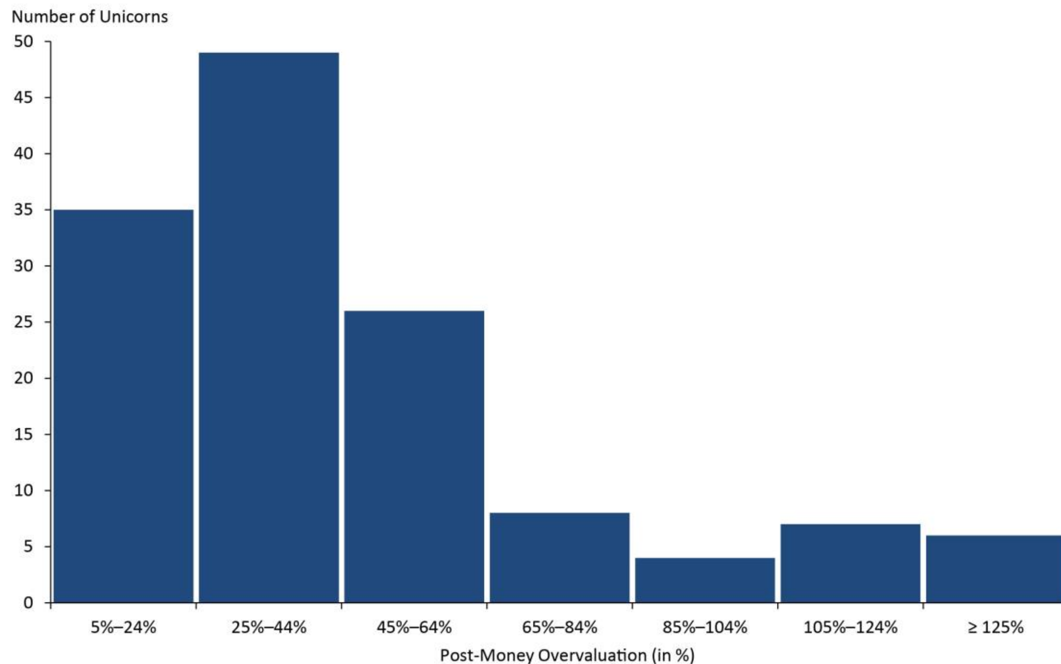
For example, certain series provide the potential for a more favorable payout in case of an IPO, such as the right for additional shares in a low-priced IPO, called IPO ratchet, or the right to benefit from both the payout upon conversion and the liquidation preference, called participation.

Other contractual features that convertible preferred stock series often include offer additional protection in downside scenarios, such as protection from down-rounds, known as anti-dilution, and protection from automatic conversion at IPO. The latter exempts the preferred stock from automatic conversion at IPO if the IPO does not reach certain thresholds in terms of price or proceeds.

These and other rights can make a series of preferred stock more valuable than, and potentially less representative of, the remaining classes of stock, making a naive post-money valuation — which ignores differences between classes of stock — inappropriate.

The chart below shows the difference between the post-money valuations and the valuations estimated using the new methodology in the 2020 study of 135 U.S. unicorns.

The average unicorn post-money valuation is 48% above its fair value as estimated using the new methodology. The post-money valuation was at least 100% higher than the value given by the new methodology for more than 10% of the unicorns that were analyzed.



While the new methodology was designed to be used in the context of capital raising rounds, when a fair price for a series of stock may be available, it can also be used as a starting point for a valuation on a different date.

In those cases, adjustments to the valuation or a combination with other valuation techniques may be required, depending on the characteristics of the firm and its growth.

Conclusion

Venture capital financing has long been an important feature of capital markets for high-growth companies in the U.S., but its importance has grown substantially over the past 15 years, and more companies delay their IPOs and reach very high valuations while private.

Valuation of venture capital-backed private companies can be challenging because of the lack of financial information and because of the distinctive characteristics of those firms.

Thus, market participants often rely on the price of new financing rounds to back out the total value of the company as given by the post-money valuation, which is calculated by multiplying the per-share price of the latest round of financing by the total number of fully diluted shares outstanding.

However, this metric does not appropriately reflect the complexity and heterogeneity of the preferred convertible stock issued by venture capital-backed companies. Using an appropriate methodology to value the company at the time of a financing round can and often does result in valuations that are substantially below those implied by the post-money valuation.[7]

These differences can be central to many types of disputes involving venture capital-backed companies, their investors, employees, founders and tax authorities, among others.

Ilya A. Strebulaev, Ph.D., is the David S. Lobel professor of private equity and professor of finance at the Graduate School of Business, Stanford University.

Manuel Vasconcelos, Ph.D., is a principal at Cornerstone Research Inc.

The opinions expressed are those of the author(s) and do not necessarily reflect the views of the organization, its clients, or Portfolio Media Inc., or any of its or their respective affiliates. This article is for general information purposes and is not intended to be and should not be taken as legal advice.

[1] Gornall, W. and I. A. Strebulaev (2020), "Squaring Venture Capital Valuations with Reality," Journal of Financial Economics 135, pp. 120-143 ("Gornall and Strebulaev (2020)"). A unicorn is a VC-backed company that reaches a reported valuation of $1 billion or more while remaining private.

[2] Gornall, W. and I. A. Strebulaev, "The Economic Impact of Venture Capital: Evidence from Public Companies," Working Paper, June 2021.

[3] See e.g., Aramonte, S. and F. Avalos, "The rise of private markets," BIS Quarterly Review December 2021.

[4] See e.g., Ewens, M. and Joan Farre-Mensa (2020), "The Deregulation of the Private Equity Markets and the Decline in IPOs," Review of Financial Studies 33, pp. 5463-5509.

[5] An important precursor to the Gornall-Strebulaev methodology is covered in Metrick (2007), who implements an option-pricing method to value securities of VC-backed firms. See Metrick, A., Venture Capital & the Finance of Innovation, John Wiley & Sons, 2007.

[6] The methodology also requires certain other inputs, including the expected volatility of a company's value, that may need to be adjusted depending on the firm being considered.

[7] Conceptually, the Gornall-Strebulaev methodology is similar to the backsolve methodology that is often used in the context of 409A valuations in the sense that it can back out the value of the whole company and of each equity claim from the price of a single equity claim. However, there are some important differences. Among other things, the Gornall-Strebulaev methodology explicitly models the distribution of the value of the company over time, allowing for a more reliable incorporation of more complex features and providing an interval for the valuation of each class of stock, rather than a single point estimate. Further, 409A valuations often (erroneously) include approved but unissued stock options in their calculations, while the Gornall-Strebulaev methodology does not.