Venture Capital Valuation: Case Studies and Methodology
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CHAPTER 10

Now That You Understand Venture Capital Valuation, Share It

> *"Rising prices are a narcotic that affect the reasoning power up and down the line.... Isaac Newton participated in the South Sea bubble. Originally got out. And then he couldn't stand prices going up any longer and so he went back in and got cleaned. And this was a fellow who was generally regarded as being pretty bright."*
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> —From Warren Buffett's testimony in front of the Financial Crisis Inquiry Commission

If you read even the first chapter of this book, you've effectively transitioned from the 99.9% of decision makers involved in a venture-capital-backed company who are losing money because they don't understand valuation. As illustrated in our very first case of valuation issues—Facebook v. ConnectU—you don't always need complicated math to bridge the gap between different standards of value. All you need is to know that there is a difference in value standards, understand what the assumptions are for those standards, and then apply a little multiplication, division, or subtraction to figure out how one value indication compares to another. This can make valuations for venture-backed and angel-funded companies easier than they are for traditional private companies and public companies. Knowing the track records, strategic motivations, and exit horizons of the parties in control is also an advantage one has when turning value indications or clues for these companies into meaningful value conclusions.

In the capital markets, price appreciation can be addictive, as Warren Buffett noted in his testimony to Congress after being subpoenaed to offer

insights on what he referred to as "the granddaddy of all bubbles, it affected an asset class of $22 trillion." Although venture-capital- and angel-backed companies are made up of humans, and naturally susceptible to the lure of rapid capital appreciation, I believe there's a big difference between how rising prices, or values, work in these companies versus how they work on Wall Street. The vast majority of people involved in venture-capital- and angel-backed companies are employees who have chosen to work for small companies with negative earnings (on an accounting basis) and no meaningful operating cash flow. These employees include the founders themselves, who envisioned the businesses, key hires who share that vision, and entrepreneurial managers who see a way to execute it. These people are, by and large, motivated by the opportunity to create something that's going to make a difference. But without price appreciation for the funds and angels that invest in those ventures, most of these companies will be sorted by natural selection, just like the evolving markets they are pursuing. In this environment, rising valuations are less of a narcotic and more of an antibiotic, fighting off the chances that everything goes to zero and the enterprise gets shut down. This environment, however, creates more volatility than most of the firms bailed out in the financial crisis ever experienced, even during the height of the crisis, and that's a good thing for these same employees, if it's reflected in the models that determine a key component of their compensation.

Unlike trading options on an exchange, or even buying or selling equity or debt in the open market, venture-funded companies almost always require collaboration and teamwork with parties that may get more than their pro-rata share of proceeds when the company is acquired or goes public. Understanding what the different parties hold and how those values are interconnected can only help foster better alignment of efforts when things get really tough, when things go extremely well, and even when a company appears to be going sideways. Each of these scenarios can apply to a high-velocity company multiple times during its young history and each, of course, has profound and distinct impacts on valuation.

So now that you are able to make better venture-backed company valuation decisions than the experts advising ConnectU, who should you share that information with? Share it with everyone. Starting with your friends and the people you trust. They may not agree with your insights immediately, but as they encounter these transactions more often, their perspectives will change and they will no longer see a "valuation" as a single point estimate, but rather as a "what if" expression subject to certain assumptions. Those assumptions are often far more important than the single point (or value conclusion) presented. For instance, if they know, as you now do, that the volatility assumption being used is too low, which we've demonstrated

is the case with almost each and every venture-backed company valuation, then how does that impact their investment? Perhaps more importantly, consider how that single assumption might impact the ability of each of the following parties to make or lose money:

- Founders, CEOs, CFOs, and investors in biotech, clean tech, Internet, IT, and other high-growth private companies.
  - Founders, CEOs, and CFOs would effectively be granting options at a higher strike price for most a company's life with volatility estimates too low, as shown throughout this book. When the company value gets quite high, the impact would decrease with respect to the estimated total company value, but would persist in the absence of secondary markets such as Sharespost and SecondMarket.
- Venture fund analysts and investing partners, angel investors, secondary purchasers, and journalists covering private equity, venture capital, biotech, clean tech, Internet, and IT.
  - Venture-fund analysts at some funds routinely build waterfalls, but hardly ever apply volatility to the cash flows of those waterfalls as of the date this book is being published. As a result, the range of possible payouts is often limited to a handful of possible outcomes, as opposed to an "infinite" amount of payouts, as would be the case by simply applying Black-Scholes in an option pricing model (OPM) as demonstrated throughout this book. Venture-fund analysts are generally hired from top schools and tend to have far more time to do these analyses than your typical angel and far more inclination to want to do the analyses than your typical investing partner. If they are not measuring investing cash flow potential in a way that explicitly considers volatility, then almost no one in a venture is except the valuation professionals and the auditors, whom the investment decision makers tend to see as sources of compliance-related expenses, not sources of investment insights.
  - Secondary purchasers on SecondMarket and Sharespost, if they are not VCs, generally have access to very little information concerning a company other than one critical piece of data: perceived growth trajectory. These investors are especially counting on volatility, yet few of them model it explicitly as a discounting factor when making their purchase decisions. That may be appropriate when private companies are valued in the billions, like Facebook, Zynga, or LinkedIn, but what about the other 7,000 or so companies? A little analysis using volatility as an input can go a long way toward realizing venture-like returns for secondary purchasers who aren't VCs.

- Chief Investment Officers and analysts at limited partners, such as insurance companies, pension funds, and endowments.
  - Some limited partners literally spend millions attempting to understand where their alternative asset portfolio is heading so they can meet future obligations. However, few if any are applying the simple volatility inputs we've discussed to their holdings to better refine those estimates and potentially benefit by increasing direct interest in winners through secondary purchases based on volatility. Although detailed analysis of fund holdings is not generally available, we've shown that for most companies, you can generate models that would be superior to what these limited partners generally have to work with today simply by using a certificate of incorporation from SecondMarket or Sharespost combined with some data from the Crunchbase API. With so much at stake, hiring a young analyst at $80K to $100K per year just to do this type of analysis could yield billions (yes, billions), simply using the techniques we've demonstrated in this book.
- Auditors, valuation professionals, legal counsel, and other advisors to the VC ecosystem.
  - Trusted advisors want to deliver the best advice and insights. But sometimes, it's hard to change from the status quo without an incentive. If an auditor were to say in 2008, "100% of the volatility inputs to Black-Scholes for equity compensation calculations are too low for our venture-backed clients," that person had better have a big title and a collection of clients who care. Since very few financial statement notes are even read, the connection between a company's equity compensation disclosures and the value to the employees of the company's option grants is not something most companies are aware of. By working together, attorneys, valuation professionals, and auditors make an understanding of the basic valuation inputs and methods we've discussed in this book as widely understood by their clients as net income or cash on hand is.

The next time someone says the "pre-money value" of a company was a certain amount, realize that in most cases, that's just an expression of the percentage ownership acquired in the most recent round and the resulting price paid per share for the new round. You know that unless the company is worth many times more than the capital it has received to date, which means the pre-money value immediately before the financing plus the cash received (the traditional "post-money" value definition) does not equal the fair market value of the company. You also realize, however, the takeover value for the company immediately following the financing round may in fact be much higher than the post-money valuation.

Unlike thousands of private company investors and fund limited partners, you should no longer have to simply dismiss the amounts on fund balance sheets as "estimates," or rely solely on actual cash-on-cash returns as convincing evidence of interim IRRs. Unlike millions of venture-capital- and angel-capital-backed company employees, you will no longer have to view your options as "worthless" and hope for the best. And as a founder or officer of one of these companies, you can better align the actions of your advisors with the needs of your stakeholders and thereby serve your employees and investors better by stopping parties from losing money before it's too late to do anything about it and understanding how "value" changes their rights to cash flow at every stage of a company's evolution.