

## Understanding Valuation: A Venture Investor's Perspective

A. Dana Callow, Jr. *Managing General Partner, Boston Millennia Partners*  
Michael Larsen, *Senior Associate, Life Sciences*

### **Introduction**

*You have met with several venture firms, responded to countless due diligence inquiries, and a strong lead investor is finally emerging with intent to submit a term sheet. Only one task remains—establishing a valuation.*

At the core of every venture capital financing is a mutually accepted valuation of the company by investor and entrepreneur. A valuation reflects both the entrepreneur's determination of the acceptable amount of ownership that may be given in return for the venture firm's capital and expertise, and the venture investor's determination of the risks and rewards of the investment. This dynamic is often misunderstood—and with harmful consequences. Understanding valuation from the venture investor's perspective is crucial. Realizing how valuations are determined and adjusted throughout the life of the company is critical to the investor-entrepreneur relationship and the ultimate success of the company.

Valuation methodologies differ by the stage of investment and the availability of quantitative and qualitative data. However, the basic language and components of venture capital valuation are universal, simple, and should be well understood before you engage a discussion of valuation with a venture capital investor. This article will explain how venture investors consider, construct and justify valuations of early-stage companies, and will offer perspective on the dynamic role of valuation throughout the life of a company.

### **The Basic Math**

Any private equity deal will focus on the “pre-money” valuation of the company. This is the estimated or notional value of the company as it stands prior to any purchase of equity. Determining the pre-money valuation of the company, combined with the amount of capital accepted by the company, determines the amount of equity ownership sold in exchange for capital. The resulting valuation after the investment of capital is called the “post-money” valuation. For example, in a company with a pre-money value of \$5 million, a \$5 million investment would buy a 50% ownership stake in the company.

$$\text{Pre-Money Valuation} + \text{Invested Capital} = \text{Post-Money Valuation}$$

$$\text{Price per Share} = \text{Pre-Money Valuation} / \text{Pre-Money Shares}$$

It is important not to focus just on the valuation negotiation. Just as important as the negotiation of the “pre-money” valuation is the entrepreneur's decision of the amount of capital to accept, which is predicated on how efficiently the company will use capital.

### **Methodology**

#### *Differentiating Data*

Early stage investing is far from an exact science. Early-stage companies are often comprised of little more than an entrepreneur with an idea. Valuations at the “seed stage” are generally driven by factors that by their nature are subjective. These include appraisals of the CEO and management team, novelty of the value proposition, evaluation of intellectual property, expected time-to-market, expected path to profitability, estimated capital needs and burn rate, syndicate risk, sector volatility and deal structure. In post-seed investing, intermediate data points such as events demonstrating proof of principle and product validation will factor strongly in valuation determinations. As a company matures to a revenue stage, more quantifiable data is produced in the form of operating statistics and performance indicators. Actual results allow investors to more accurately model quarterly and annual revenue, EBITDA, cash burn, pipeline close rates, backlog, bookings and enterprise valuation.

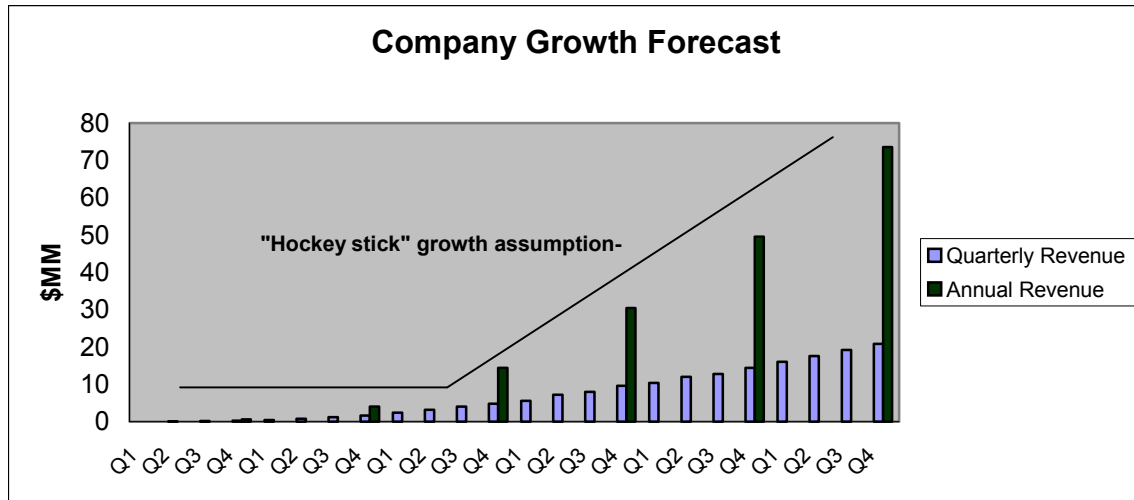
*Valuation by Stage*

Financing	Company Stage	Data	Risk/Uncertainty	Value* (MM)
Seed	Incorporation; early development	Soft data; value proposition, etc.	Extremely high	\$1+
Series A	Development	Validation, time to market	Very high	\$3+
Series B	Shipping Product	Prelim revenue	High	\$7.5+
Series C+	Shipping Product	Predictive revenue	Moderate	\$10+
Later-stage/Mezzanine	Shipping Product, Profitable	Hard data; EBITDA, net income	Lower	\$20-50+

\*Based on 2003 market information

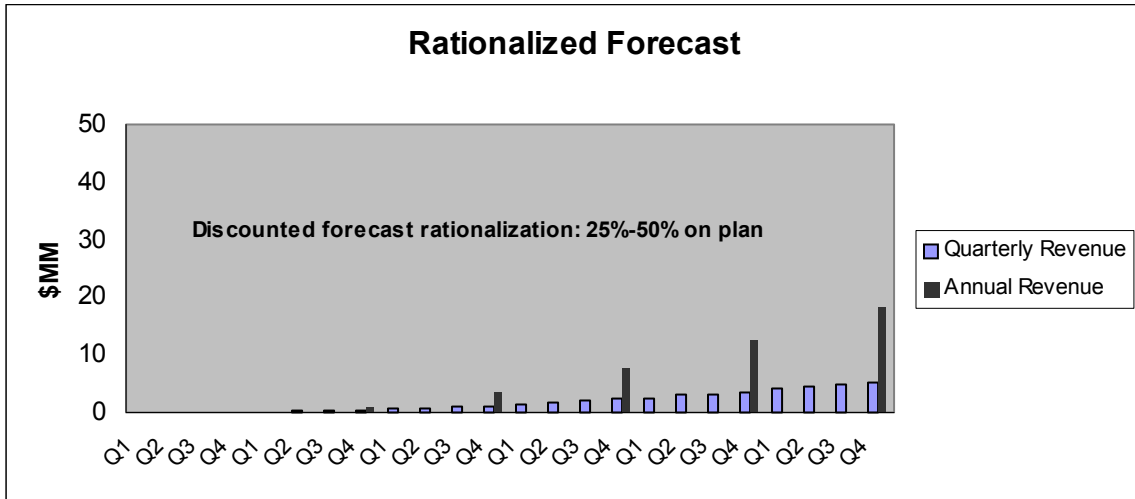
The chart above may be oversimplified (and should not be considered as a guide to minimum valuation levels) but it does indicate the valuation trend line of a typical investment as the company matures. Risk varies inversely with the quality and quantity of data. The high degree of uncertainty inherent in seed and early-stage investments translates into low pre-money valuations. Failure rates of startup companies are extraordinary, so investors must be compensated for placing their capital at such risk. Conversely, late-stage and mezzanine investors have the benefit of predictive financial models that help to mitigate risk. They “pay” for the reduced risk with higher pre-money valuations, allowing for less upside.

*Deconstructing a Forecast*



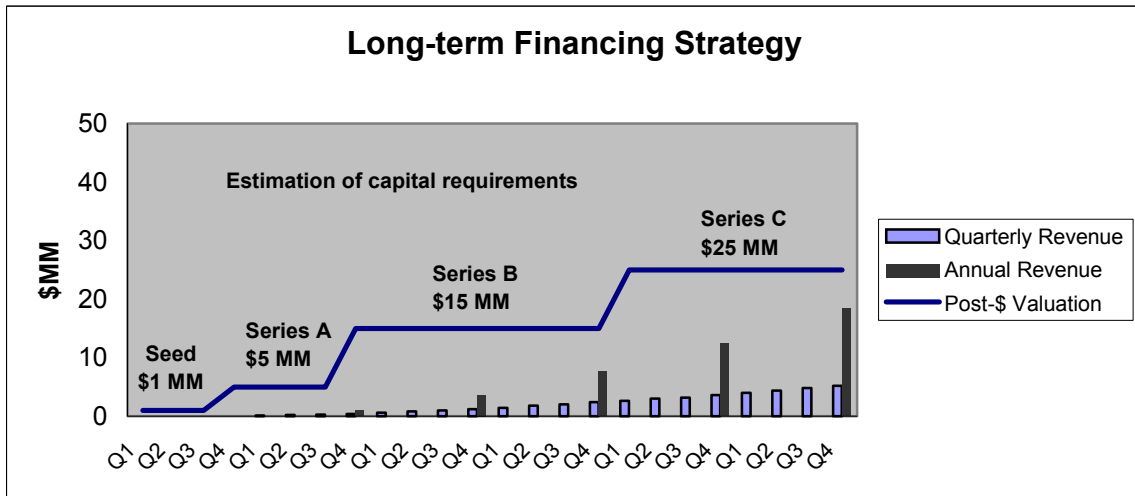
Venture investors see hundreds, if not thousands of business plans each year. Every plan includes an attractive budget and aggressive growth plan. Forecasts claim to be predicated on “conservative assumptions” including minimal market penetration, product pricing and gross margin. Regardless of how they are constructed, these forecasts are almost always over-optimistic in their assumptions. A venture investor will “scrub the numbers”, rationalize assumptions and run sensitivities based on varying degrees of execution, competitive pricing pressure, seasonality, etc. The resulting rationalized forecast may represent only a fraction of the original plan.

*“Scrubbing the Numbers”*



Discounting from the original forecast may reveal significantly greater capital requirements than first expected. As an entrepreneur, it is in your best interest to understand the short- and long-term capital requirements of your company. These capital requirements will provide the underpinning of your company’s long-term financing strategy. How much must be raised now? When will the next financing be needed? What significant milestones will be accomplished during that time? An understanding of the long-term financing strategy is crucial. A seasoned entrepreneur works with his investors to develop a financing strategy based on building value from one financing to the next and understanding how value will be measured.

*Staged Financing Strategy*

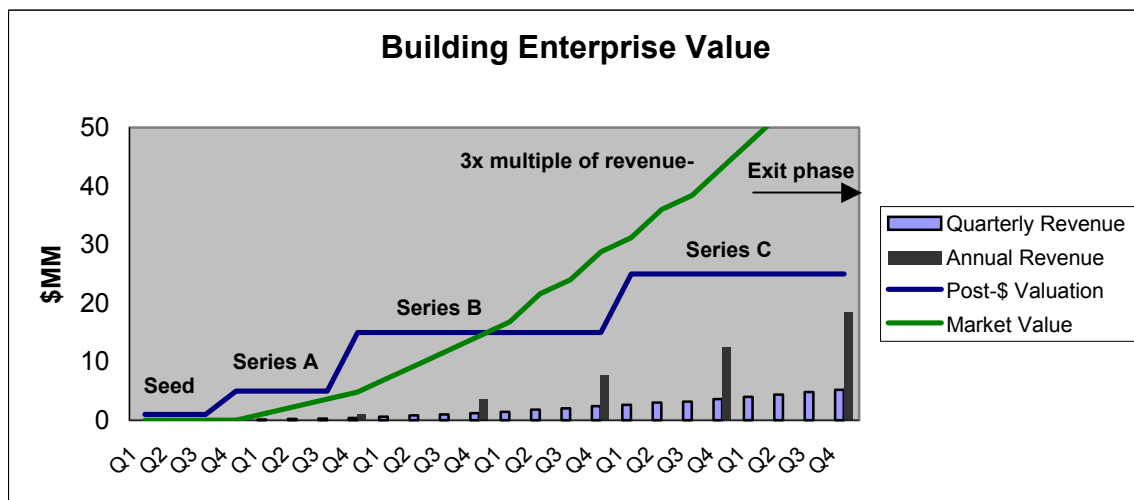


Building a company requires time and cash.

- **Seed Financing:** The seed financing will provide the capital needed to support salaries for founders/management, R&D, technology proof-of-concept, prototype development and testing, etc. Sources of capital may include personal funds, friends, family and angel investors. Capital

raised is limited due to its diluting impact at minimal valuations. The goal here is to assemble a talented team, achieve development milestones, proof of concept and anything else that will enable you to attract investors for your next financing.

- **Series A Financing:** Typically the Series A is the company’s first institutional financing—led by one or more venture investors. Valuation of this round will reflect progress made with seed capital, the quality of the management team and other qualitative components. Generally, a Series A financing will purchase a 50% ownership stake. Typical goals of this financing are to continue progress on development, hire top talent, achieve value-creating milestones, further validate product, initiate business development efforts and attract investor interest in the next financing (at an increased valuation)
- **Series B Financing:** The Series B is usually a larger financing than the Series A. At this point, we can assume development is complete and technology risk removed. Early revenue streams may be taking shape. Valuation is gauged on a blend of subjective and objective data—human capital, technical assets, IP, milestones achieved thus far, comparable company valuations, rationalized revenue forecasts. Goals of this financing may include operational development, scale-up, further product development, revenue traction and value creation for the next round of financing.
- **Series C Financing:** The Series C may be a later-stage financing designed to strengthen the balance sheet, provide operating capital to achieve profitability, finance an acquisition, develop further products, or prepare the company for exit via IPO or acquisition. The company often has predictable revenue, backlog and EBITDA at this point, providing outside investors with a breadth of hard data points to justify valuation. Valuation metrics, such as multiples of revenue and EBITDA, from comparable public companies can be compiled and discounted to approximate value.



The graph above demonstrates the typical relationship between the post-money valuation as determined in a venture investment and the intrinsic market valuation of the enterprise that might be realized in a sale of the company. The implied pre-money valuations of the seed and Series A investments exceed the market valuations at the time of those investments. This early value premium is the result of qualitative data employed in the early-stage valuation methodology. The venture investor is valuing the intangibles of the “idea” and human capital. Moving forward to the Series B financing, pre-money valuations fall in relation to market value. Interim valuations are generally below market value; this affords investors a “risk premium” in valuation to compensate for the illiquid nature of private equity.

### *Applying Perspective*

The example above illustrates the stepped function of valuation. Each financing is designed to provide capital for value-creating objectives. Assuming objectives are accomplished and value is created, financing continues at a higher valuation commensurate with the progress made and risk mitigated. However, problems can and will arise during this time that may adversely affect valuation. When a financing cannot

be raised at a step-up in valuation, investors may structure a “flat round” or a “down round” in which valuation is reduced. A down round can result from premature capital shortages from overspending, failure to achieve value-creating milestones or sub-optimal operating performance. Overpricing of a prior financing or softening capital markets may also play a role. Down-rounds are undesirable—they are cause for dilution and they undermine investor confidence. They also bring unwanted write-downs to venture investors’ portfolios. However, many companies have built success stories going through a down round.

*The valuation of a company at a discreet point in time is subject to a certain range of interpretation. Most seasoned venture investors will value a company within 10-15% range of each other if they have exhausted all quantitative and qualitative data available. Given the consistency that is generally seen in the market, the key factor in choosing one VC over another should rarely be based in valuation.*

In the long term, interim valuations will factor only modestly in the realization and distribution of proceeds upon exit. Investors will keep management incented. Remember to take the long view. Avoid arbitrary step-ups in valuation. Plan for the next financing and make sure there is ample justification for a step-up in valuation if milestones are achieved. In the end, the minutiae of valuation will matter very little. Valuation can make a good investment more attractive, but it will not salvage a poor one. A company will usually receive several financings before an exit is realized. Building value is the shared objective of entrepreneur and investor. A mutual understanding between investor and entrepreneur of the risks and rewards driving a valuation is crucial to starting a relationship on equal ground.