Investment Valuations of Seed- and Early-Stage Ventures

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Some early-stage investment negotiations resemble a game of Texas Hold-'em poker. Each player withholds information and tries to convince opponents that his hand is better than it actually is. But valuation negotiations are not card games. Unlike poker, the objective of investment negotiations ought to be for investors and entrepreneurs to share information as openly and completely as possible and to work together toward a common goal of building successful companies.

Why focus on valuation? At the time of investment, valuation is the core determinant of return for investors. In other words, the return to investors is based on the increase in the valuation of shares they receive in exchange for their capital. Understanding valuation is critical to successful investing. Unfortunately, valuation is the most misunderstood part of the investment process and often leads to contentious negotiations that get the entrepreneur-investor relationship off on the wrong foot.

What is the problem? Most entrepreneurs and investors have oblique points of view—in other words, their views don't intersect. In fact, the two sides don't even speak the same investment language. More fundamentally, neither understands what I call "divergence" of valuations. Understanding divergence can reduce contentiousness and ensure that negotiations build an effective working relationship between investors and entrepreneurs.

What is divergence? Divergence is the difference between the growth rate of the company's valuation and the valuation of the shares investors receive due to dilution by subsequent investors and other factors. Even in successful ventures, divergence, in fact, tends to be between 3x and 5x.

A simple example may help make the point: An investor funds at a $4-million post-money valuation and receives shares valued at $2 each. The company is sold in five years for $60 million, which is a 15x increase in company valuation. Due to dilution, however, the value of the investor's shares will almost certainly not have increased 15x to $30 per share. They might instead have increased only 3x to $6 per share. In this example, the increased valuation of 15x divided by the increase in the investor's share value of 3x demonstrates a 5x divergence. (For a detailed treatment I wrote, see "Valuation Divergence," an additional article for the eVenturing Collection titled "Valuing a Pre-revenue Company.")

What do angels target for returns? Some angels target 5x to 10x ROI (cash-on-cash return on their investment) in four to eight years, which yields an internal rate of return of between 25 and 75 percent. (In the accompanying table, the target numbers assume that divergence of between 3x and 5x times is factored in.) Other angels simply target 30x ROI without divergence.

The two approaches are effectively equivalent: If you assume 4x divergence (the midpoint between the expected range of 3x to 5x) and multiply that by a return of 7.5x (midway between the 5x and 10x range), then you get 30x, which factors in divergence. These rules of thumb are not sacrosanct; they reflect two common approaches.

Sweet Spot
5-10x in 4-8 Years

ROI on Invested Capital

Years to Exit	5x	6x	7x	8x	9x	10x
4	50%	57%	64%	68%	73%	78%
5	38%	43%	48%	52%	55%	58%
6	31%	35%	38%	41%	44%	47%
7	26%	29%	32%	35%	37%	39%
8	22%	25%	28%	30%	32%	33%

IRR between 25-75%

Valuation has Many Aspects

Investors often talk about the pre-money or post-money valuation of a company at the time they invest. If you get a specified percent of the common stock for your investment, and nothing else, this calculation can be straightforward. But angels have learned from VCs to negotiate for preferred stock instead of common as the type of security for their investments as well as for other financing terms, such as board seats, controls, warrants, and dividends. Under these conditions, valuation at time of investment becomes complex and not easily quantified. Although explicit valuation can be determined, and implicit valuation partially determined by accounting for some financing terms (warrants or dividends, for instance), other financing terms such as board seats or voting controls are difficult, if not impossible, to quantify fairly. For example, on a $3 million pre-money valuation, what would the imputed difference in valuation be for getting one board seat instead of two—$25,000, $100,000, $500,000?

Explicit Valuation

Computing the explicit valuation, whether pre-money or post-money, is simple but requires clear understanding of a few concepts. (For a more complete discussion, see "Valuation of Pre-revenue Companies: The Venture Capital Method" by Bill Payne in the eVenturing Collection titled "Valuing Pre-revenue Companies.")

- **Full dilution:** Full dilution counts not only shares that have been issued but also all shares that would be issued if all options and warrants were exercised and other promises or contingent agreements to issue shares were given effect.
- **Investors' (initial) percent ownership:** The percentage of a company's full dilution shares that the investors own, at the time of investment, including the shares issued to the investors.
- **Money:** The amount of capital being invested in the round.
- **Post-money valuation:** Post-money valuation is computed by dividing the money by the investors' percentage of ownership.
- **Pre-money valuation:** Pre-money valuation is computed by subtracting the money from the post-money.

If the investors receive no other consideration (warrants or dividends, for example) for their investment, then the explicit valuation is all you need to consider.

Implicit Valuation

However, when investors receive additional consideration for making their investment, the implicit valuation may be different from the explicit valuation. How to quantify an implicit valuation is beyond the scope of this article, but some typical factors are sketched out below:

Warrants: The investors may get warrants (or non-qualified options) to purchase additional shares. The factors to consider:

- **Warrant coverage:** How many additional shares the investors can purchase relative to the number of shares they purchase outright—10 percent, 30 percent, or even 100 percent.
- **Strike price:** Relative to the price of the underlying security the investors get.
- **Stock choice:** Whether the warrants are to purchase common stock or preferred stock.
- **Warrant life in years:** This varies but can be, for example, one, five, or ten years.
- **Kicker versus substantive change:** Warrants can provide a small "kicker" (5 percent coverage with a one-year warrant, for example) or can materially affect the valuation (100 percent coverage with ten-year warrants).
- **Effect on the valuation:** You need to consider the time cost of money since warrants need not be exercised (converted to shares) until a much later date.

Liquidation preferences: Investors may negotiate a liquidation preference. At exit and after secured debt, trade creditors, and other company obligations are paid, a liquidation preference determines the relative distribution between the preferred shareholders (the investors) and the common shareholders. There are various kinds of liquidation preferences:

- **Non-participating simple preference (1x):** At exit investors must choose between a return of capital (sometimes partial) and participation with the common shareholders in proportion to their ownership. (See example below.) If the investors choose complete return of capital, then any remaining proceeds are divided among common shareholders.
- **Multiple preference:** Works the same as simple preference except that investors get a multiple of their investment before common shareholders receive anything.
- **Participating 1x liquidation preference:** In this case, the investors first receive their capital (1x preference) and then their shares convert to common. The concept is to share the gains between preferred and common by first returning capital to investors and then distributing the gains from the sale of the company in proportion to ownership.
- **High multiple (5x or 7x or more) preferences:** These are also used but much less frequently. Sometimes they reflect creative deal structures (preventing earlier investors from being washed out while providing a reasonable return to new investors). At other times they are abusive and might reflect the sharks that surface in a very bad market for raising capital (as happened after the bubble burst in 2000).
- **Example:** Angels invest $1 million for 25 percent of a company without a liquidation preference, and the company is later sold for $2 million. In this example, the investors would get only $500,000, losing half of their capital, and the entrepreneurs would pocket $1.5 million. If the investors negotiate a 1x simple preference, however, they would get $1 million off the top, and the common shareholders would get the remaining $1 million. Finally, if investors negotiate a 1x participating preference, they would get $1 million off the top plus another $250,000 (25 percent of the remaining $1 million). The common shareholders would receive $750,000.

Dividends: Few investors and even fewer entrepreneurs understand how dividends are used in early-stage financing transactions. Two types of dividends are frequently encountered; a third is possible but rarely used.

- **Protective dividend provision:** In this case, there is no intention of dividends actually being paid to investors. For obscure legal reasons, such a provision may be included, stating that these dividends are payable "when and if declared by the board." The presumption, however, is that the board will not declare such payments.

- **Dividends that accrue:** These dividends are not paid in cash, but are included in computing distribution to investors at exit as a way to enhance potential return to investors without affecting the "nominal" valuation. It is unusual, and can be abusive, to include dividends like these and include participating liquidation preferences. More typically, protective dividends are used.

- **Cash dividends:** Rarely contemplated in these types of financings because both investors and entrepreneurs want to conserve cash to fuel additional growth or to show a better bottom line.

Contingent Valuations

Performance milestones are sometimes included in the financing terms that if met lead to additional shares for investors or entrepreneurs. The range of effect on the valuation can be calculated by assuming the extremes: no milestones are met and all milestones are met. How to adjust the valuation within that range is more difficult. In my experience, such milestones can be counterproductive because they can lead to unintended consequences. Human beings tend to manage to the objectives they are given, even if they are no longer in the best interests of the venture or of the investors. Plus, the process can be sidetracked by protracted renegotiation of the milestones.

Non-Quantifiable Valuation Factors

Nearly any deal terms can affect the valuation. For example, if investors want two board seats, they are unlikely to agree to take only one board seat in exchange for a reduction in the valuation by one dollar. However, they might well agree if the valuation were cut in half. Some deal terms may be deal breakers for investors, but even those presumably can be taken as equivalent to a zero valuation (no deal). That being said, I don't know of any investors who put an explicit cash value on such deal terms as:

- Founder vesting: Next to valuation, founder vesting may well be the second most contentious issue in negotiating a financing, especially if the investors want the founders to be employees "at will." Stated more plainly that means the founders can then be terminated without cause and lose any unvested shares.

- Board seat(s)

- Anti-dilution provisions

- Protective provisions: Such provisions require the company to obtain approval of the investors as a group before taking certain actions, such as changing auditors, shareholder rights, the size of the board, or the nature of the business; creating new securities; amending the bylaws or certificate of incorporation; repurchasing company shares; agreeing to a merger or acquisition; increasing the employee stock option pool; selling the company's intellectual property; issuing options or shares to executives or directors, or incurring indebtedness above a threshold.

- Information rights

- Increase in the employee stock option pool

- Registration rights

- Preemptive rights
- Drag-along rights
- Redemption: This provision refers to repayment of investors' capital, typically after five years. It can provide future negotiation leverage but is rarely invoked successfully.

For a better understanding of standard terminology, see a model term sheet at the National Venture Capital Association's Web site.

What if You Can't Agree on Valuation?

If entrepreneurs and investors get close on a deal except for an explicit valuation, several approaches are available for resolving the impasse.

Closing a valuation gap: One method is to adjust the implicit valuation using one or more factors. For example, say that entrepreneurs want a $4 million pre-money valuation for a $1 million investment but the angels don't want to go above $3 million.

- Warrants: The angels can agree to the $4 million pre-money but ask for additional (say 33 percent) long-term warrants to purchase shares at the same price.
- Liquidation preferences: Increase the liquidation preference—for example, from 1x non-participating, to 1x participating; or from 1x participating to 1x participating.
- Dividends: 8 percent dividends that accrue and are payable upon a liquidity event.
- Or a combination of the factors.

Kick the ball down the road: When a subsequent financing round is envisioned in the near-term, early-stage investors can defer the negotiation of valuation to the next round and perhaps to the VC firm that leads that round. Instead of agreeing on a valuation, the investors negotiate a discount to the next round or get warrant coverage beyond what next round investors would get. For example, if the next round closes within six months, the current investors get a 30 percent discount or 30 percent warrant coverage. If the next round takes longer to close, they receive higher discount or warrant coverage.

Deferred valuation collars: Deferred valuation approaches can include a "collar," which is a minimum and a maximum valuation that protects investors and entrepreneurs if the subsequent valuation is outside that collared range.

Without a collar on a high valuation, for example, investors could encounter the unusual venture that takes off like a rocket and that, by the subsequent round, results in a valuation so high that even a 50 percent discount from that valuation gives away the huge upside that's occurred. A downside collar protects entrepreneurs from their valuation being badly crippled when things go wrong, possibly through no fault of their own—a terrorist strike, for example.

Here's an example that illustrates both perspectives. Say that investors and entrepreneurs cannot agree on a valuation. Investors want $3-million pre-money and entrepreneurs $5 million To move forward, they agree on a 30 percent discount at the next round—without a collar. If the next round were done at $50-million pre-money, the 30 percent discount ($35 million pre-money) would still be 7x higher valuation than the entrepreneurs would have taken for the current round. Even though such rocket-ship starts are highly unusual, investors should not give up that potential by not including a collar.

To protect the entrepreneur's interests, the agreement might be a 30 percent discount to the next round with a collar of $3 million to $5 million or $2 million to $6 million.

Market Valuation

In the end, the practical determinant of valuation is the market. Always use market conditions as a starting point in financing negotiations. As another article in this collection shows, median pre-money valuation of venture capital seed-stage enterprises has varied over a narrow range between $1.7 million and $2.5 million since 2002. (See "Is Valuation a Key Issue in Funding Startups?" an eVenturing article by George Lipper. The article references venture capital fund valuations, which tend to be higher than angel valuations.)

Concluding Suggestions

In many respects, arriving at a valuation is more art than science. But there are some general points to be made:

- Investors should understand and be able to explain divergence to entrepreneurs. Once entrepreneurs realize that their assumptions about investors' returns based on the company valuation at exit may be off by a factor of 3x to 5x, negotiations become easier. If neither side understands divergence, then negotiations can easily deteriorate and become contentious.
- In general, educate before you negotiate. In addition to divergence, be able to explain the rationale for a 1x participating liquidation preference, for example, or the implications of pre-money valuation.

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