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Reported Values Of Unicorns: Willful Ignorance In The Valuation Of Venture-Backed Companies

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The reported valuations of venture-backed companies are the outcome of willful ignorance. At each funding round, shares are issued with different downside protection and control rights. Yet these different contractual terms are ignored in reported valuations, leading to the average reported valuation being overstated by 50 per cent.

The reported valuations of large, venture-backed companies are overstated by 50 per cent, according to evidence compiled by researchers at UBC and Stanford.[1] For a sample of 116 venture-backed companies with reported valuations of $1 billion or more, the researchers compared valuations based upon the most recent funding round, to valuations which account for the special control rights and downside protection offered to the most recent investors. Securities held by investors without these special control rights and downside protection can sometimes be worth just a fraction of the privileged shares, but this discount is ignored in commonly-reported valuations of the company.

The paper provides a quantification of the willful ignorance in reported valuations. Suppose a company has 60 million common shares, 30 million preference shares and needs an injection of cash. The company decides to issue another 10 million shares at $10.00 per share to raise $100 million. But these later investors want some protection. They ask for a guaranteed return in the event of an IPO, (an "IPO ratchet") and protection against automatic conversion of their preference shares. The latest preference shares to be issued are worth $10.00 each, but the other 90 million shares are worth considerably less.[2]

Yet, it is almost unheard of for someone to report a valuation lower than $1 billion for the company in this representative example. Clearly, securities with markedly different risks and control rights will be worth different amounts. But the valuations reported by venture capital investors and in the financial press generally

[1] Gornall, W., and I.A., Strebulaev, 2017. "Squaring venture capital valuations with reality," Working paper from University of British Columbia, Stanford University and National Bureau of Economic Research, July. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2955455

[2] The Economist refers to the 'ill-advised but common practice among the unicorns [of …] pumping up their valuations and giving outsiders a misleading picture of what they are "worth".' (Technology companies: The rise and fall of the unicorns, November 28, 2015). Forbes documented the winners and losers from the Square IPO, which was priced at $9 per share, well below the $15.46 price at which Series E shares were sold. Series E shareholders were guaranteed a return of at least 20 per cent, which meant they received an additional 10.3 million additional shares (The winners and losers of the Square IPO, November 19, 2015).

reflect the price paid in the most recent funding round, with no accounting for the terms attached to different classes of shares.

This does not mean that investors at each stage of funding are being swindled. It could well be the case that the price paid by each investor is fair, given the downside protection or control rights allocated to that particular class of shares. It does mean, however, that when venture capital firms report valuations based upon shares with lower risk and more control, that they are overstating the value of their position. It also means that common stock or options issued to employees should not be valued on the basis of other securities, without adjustment for the higher risk and lower control of common stock.

Thankfully there is a framework which can be used to value securities with different terms in the same company, and the researchers exploit this framework. It is the same framework which underpins valuation of options and which was developed four decades ago by clever researchers named Black, Scholes and Merton.

The value of an asset today is the present value of its expected future payoff. For each class of shares, the potential payoff in an IPO or private equity sale, is different depending upon the final exit price. To value shares with different terms, the researchers first generate a set of all possible exit prices and then work out the possible payoffs to each class of shares. For instance, at a low IPO price the shareholder with a guaranteed return gets issued more shares. So at low IPO prices, common shareholders experience more dilution and therefore a lower effective payoff upon exit. The valuation for each security is then the average payoff, in present value terms.

In comparison to models for valuing a simple call option, valuations of this type can only be done with numerical methods – in short, simulate all possible payoffs, discount to present value, and take an average. The mechanics of the computations are not the particular challenge. What matters is careful consideration of the contractual terms investors agree to, and how this translates into an allocation of risks and rewards for different investors. It is this part of the analysis where reported valuations generally fall short. Investors know the terms matter, but often simply choose to ignore the impact of those terms in reported valuations. It can best be described as willful ignorance of factors that materially impact on value.