

"Dilution: Here's A Primer of Stock Vocabulary"

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I was pleasantly surprised when I received a number of very favorable comments about my column which discussed the basics of stock, i.e., issued, outstanding, treasury and the like. Although I thought that this was pretty basic stuff, I forgot that it can be confusing the first time through.

In the last few weeks, I have had several discussions with entrepreneurs and investors about the concepts of "dilution" and "valuation." Because there are often misconceptions about these terms, I thought it would be useful to review them at this time.

Dilution.

Dilution connotes a decrease in something. As applied to stock there are at least two dilution concepts: a decrease in percentage ownership of a company (Percentage Dilution), or a decrease in the economic value of an investment (Economic Dilution).

Percentage Dilution.

If Bill Gates owns one thousand shares of Microsoft, which represents 100 percent of the issued and outstanding stock, and Microsoft issues one thousand shares to Paul Allen, then Bill Gates has experienced Percentage Dilution in his ownership from 100 percent to 50 percent.

Economic Dilution.

Note that a Percentage Dilution in stock ownership has no direct relationship to the value of that stock ownership position. The Board of Directors of a company is supposed to determine that the company has received fair value for the stock it issues. Of course, the "value" of the stock can go up and down over time. So if Bill Gates paid one dollar per share for his one thousand shares, and Paul Allen comes along and buys one thousand shares from Microsoft at a price of two dollars per share, then Bill Gates has experienced a Percentage Dilution, but his economic position has been increased from his initial position. On the other hand, if Paul Allen buys his Microsoft stock at a price of seventy-five cents per share, then Bill Gates has experienced both Percentage Dilution and an Economic Dilution from his initial one dollar purchase price. Dilution from an initial price is different than dilution from the current price. For example, a sale at seventy-five cents per share would not represent an Economic Dilution from current value if the fair

market value of the stock was fifty cents per share at the time Paul Allen purchased. Conversely, if Paul Allen paid two dollars per share, there would be an Economic Dilution from current value if the fair market value at the time was \$2.50 a share. So, Dilution is really a matter of what perspective you take.

Anti-dilution Protection.

So what does it mean when an Investor talks about receiving "Anti-dilution Protection?"

In some cases, usually rare, the Investor means that his or her percentage ownership will always remain the same as when the initial investment was made. What this really means is that the other stockholders will "take it on the chin" and experience more than their pro-rata portion of dilution. This type of Anti-dilution Protection is most often used early on in a venture (e.g., until the first \$1 million in equity is raised), or if there are some real questions about the current valuation.

In other cases, mainly with publicly traded securities, the Investor means that he or she wants to be protected from issuances of securities by the company at prices below the then-current fair market value. So the Investor will be protected if he buys at two dollars per share, and the company subsequently issues stock at ten dollars per share at a time when the fair market value is twelve dollars per share.

For the private company with professional venture capital investors, there is yet a third concept. Venture investors often choose convertible preferred stock, convertible debt, or debt with warrants as their investment vehicle. This gives them a position which is senior to, or "ahead of," the common stock if the company is sold or liquidated, but also allows them to participate in the "upside" with the common stock if things take off. For example, assume the investors purchase Series A Convertible Preferred Stock at a price of one dollar per share, which is initially convertible at the option of the investor into one share of common stock, a 1:1 conversion ratio. If the company subsequently issues stock at a price less than the initial one dollar price paid by the investor, then the conversion ratio is adjusted so that one share of Preferred Stock will be convertible to more than one share of common stock. The conversion formula adjustment is typically referred to as "anti-dilution protection" and there are two types: full ratchet adjustment, and weighted average ratchet adjustment.

Full ratchet is the most onerous from the Founder's viewpoint. If the company issues even one share of stock at a price below the price paid by the Investors, then the conversion price drops fully to that price. For example, assume the Founder owns one million shares of common stock and the Investor purchases one million shares of Convertible Preferred Stock at a price of one dollar per share, which is convertible into common stock at that price (\$1 million initial purchase price divided by one dollar conversion price equals one million shares of common stock). The Founder and the Investor each now own 50 percent of the company. Under a full ratchet, if the company issues one share at a price of ten cents, then the conversion price becomes ten cents, and the Investor can then convert his one million shares of Convertible Preferred Stock into *ten* million shares of common

stock (\$1 million initial purchase price divided by ten cent conversion price), thereby resulting in the Founder owning 1/11th of the company and the Investor owning 10/11ths.

Weighted average ratchet anti-dilution adjustment is better from the Founder's viewpoint. Although the formulae used differ in some ways, the basic approach is to adjust the conversion price to the average price received by the company for stock issuances, taking into account the amount of money raised at different prices. A typical formula is as follows:

$$\text{NCP} = [(\text{OB} \times \text{OCP}) + \text{New\$}] / \text{OA}$$

where:

NCP = New Conversion Price

OB = Outstanding Shares Before Offering

OCP = Old Conversion Price

New\$ = Amount Raised in Offering

OA = Outstanding Shares After Offering

This formula is applied only if the price in the offering is less than the old conversion price.

Armed with a basic understanding of the vocabulary of Dilution, both the Entrepreneur and Investor are ready to finalize their deal. But don't take my definitions literally; different people mean different things by the same words. So don't be afraid to ask.

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