VALUING TECHNOLOGY BUSINESSES

One of the most important questions for any business owner is "What's my business worth?" to which, the stock answer is "It depends." This paper explains the factors affecting the valuation of a business. This is useful when selling a company and when bringing in new investors who buy a piece of the company.

Valuation thoughts and concepts

The fundamentals underlying the valuation of a business are no different than those for other things we buy and sell such are houses, cars, old furniture, etc. Value is:

- Based on **perception**: "Beauty is in the eye of the beholder." A house that one person perceives needs a lot of work is a "fixer upper" to someone else who sees an opportunity to turn his sweat into profit. The same exists for businesses.

- **Personal**: "What is it worth to me." A 1957 Chevy has more value to someone for whom this brings back fond memories than to someone who sees an old car with a rough engine and no air conditioning. A business is worth more to someone who has successfully run similar enterprises.

- **Relative**: "Different values for different people". Closing a sale (both parties agreeing to a value) is as much an art as a science. It is a matter of both parties seeing benefit in making the deal.

Valuation terms

To understand business valuation, it is important to be familiar with the key financial terminology used. In particular, the following concepts are essential:

- **Time value of money**. A dollar today is worth more than a dollar tomorrow. A dollar yesterday is worth even more because you could have invested it or put it in the bank and had more than a dollar today. The time value of money is also called the cost of capital and it is different for different people. Some typical measures are the U.S. Federal Funds rate and the Prime Interest Rate.

- **Discount rate** is the amount of discount given to future cash flows to adjust for the time value of money **AND** risk. Higher risk investments require a higher discount rate. The U.S. Federal Funds rate is often used as a surrogate for a zero-risk rate because the risk of the US Government defaulting on its loans is considered very low.

- The **present value of future cash flows** is a calculation that uses the discount rate to determine how much it would be worth today to have a specific set of future payments. The following is a simple example using a 10% discount rate:

	Cash in 12 months	Cash in 24 months	Cash in 36 months
Amount	\$1000	\$1000	\$1000
Discount rate	$1/(1+0.1)$	$1/(1+0.1)^2$	$1/(1+0.1)^3$
Present value	\$909.09	\$826.45	\$751.32
Net present value	\$2486.86		

Assessing risk

Risk is a key element in determining the value of a business. It comes primarily from 5 areas:

- **Market risk.** What is the chance that revenues will be less than forecast or anticipated?

- **Product/technology risk.** What is the chance that the product or technology will cost more to develop or will not meet its price, cost, or benefit targets?

- **Management risk.** How confident are you that the key personnel in the company can be successful? This risk is much lower if the key managers have a track record of doing something similar.

- **Execution risk.** What is the chance that the company will not be able to implement the plan.

- **Competition risk.** What is the chance that another company will be able to implement better, sooner, or cheaper?

Valuation components and techniques

There are three approaches to determining value:

- **Fair market valuation** is the price a willing buyer with complete information, not under unusual stress, will pay an unrelated seller not experiencing undue pressure to sell.

- **Book value** is the value of a company's assets minus its liabilities as stated in its financial statements that have been prepared by competent authorities according to GAAP or other accounting standards.

- **Liquidation value** is the amount of money that would be received today if the assets of a company were sold in an action-like format, minus any liabilities the company might have.

In most cases, a business will be sold based on its fair market value. This is generally higher than book value, which is generally higher than liquidation value. There are, however, many examples of businesses that sold for less than book value or less than liquidation value due to unique circumstances.

Techniques for determining fair market value

There are four main approaches that are used to determine the fair market value of a business:

- The **discounted cash flow method** uses a table similar to that discussed under **present value of future cash flows** to calculate how much the future income stream of a business would be worth in today's dollars.

- The **venture capital method** uses the following steps:
  - Determine a realistic "Proforma" forecast.
  - Find Price to Earnings (P/E) ratios for comparable businesses.
  - Determine a company's future value by multiplying earnings by this comparable P/E.
  - Determine what % ownership is required to achieve the required ROI on the initial investment. For VCs this ROI is typically between 30% and 80% depending on risk.
  - This will determine the post-money valuation.

  The following is an example:

	Year 1	Year 2	Year 3	Year 4
Net income	(25)	225	525	975
Net income year 4				975
Comparable P/E				15
Future value				14,625
VC investment	1,000			
Required ROI				65%
VC future value $(1000)\times(1.65)^4$				7,500
VC ownership (7,500)/(14,625)				51%
Post money value	1,950			

- The **market comparables method** is similar to what's used for valuing homes. One finds other businesses of a similar size in a similar industry that have been sold in open market transactions between unrelated buyers and sellers. The value of these transactions can then be adjusted to compensate for any differences in the businesses.

- The **weighted approach** uses a weighted average of the above methods.

Other issues affecting value

The above methods give an indicative value for a business. This value may be higher or lower depending upon the following additional criteria:

- **Accounting records and clean books**. A company that has audited books is considered a lower risk and therefore has a higher value.

- **Professional support team.** A company that uses well-recognized lawyers, accountants, etc is considered a lower risk.

- Company **ethics**, **values** and **reputation**. This also affects risk.

- Quality of **management team** and **track record**.

- Competitors, market size, and entry barriers.

- Intellectual property and its quality and protection.

- **Changing attitudes prior to close**. The way in which the negotiation proceeds and any actions taken by either the buyer or the seller can greatly influence perceived risk.

Remember, valuation is one part of the equation--terms and structure are equally important. For example: "Is the deal cash or stock?" "Is the cash paid at closing or later?" and "What are the seller's obligations after closing?"

Conclusion

This paper has presented an overview of business valuation for technology companies. The following is a source for getting market comparables if you are having trouble finding public financial information:

http://www.infotoday.com/supersearchers/ssma.htm

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