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Valuation of Privately Held Companies

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The Modern Corporation

- In 1901, US Steel was the first $1 Billion corporation and it had 200,000 employees at 149 Steel plants

- In 2000, Yahoo was valued at $70 Billion (more than the entire US Steel industry) and it had 2,000 employees with a mere 6% of the value of US Steel's assets

- We got here because of the advances in: Management, Labor, Government, Finance, and Technology

Richard Tedlow, a business historian and professor at the Harvard Business School (Business Week August 28, 2000)

Today's Agenda

- Valuation Theory
- High Impact Factors
- Four Cases:
  - Start-up Case (Market Based)
  - Operating Case (Income Based)
  - Family Case (Asset Based)
  - Losing Case (Potential Based)
- Retrospective on the "dot com mania"
- Concluding Remarks

Valuation Theory - First Principles

- Value is in the pockets of the qualified buyer
- Investors' purpose is not to own, but to gain cash
- Wealth is created from order and leverage through time
- The sustained appreciation of per share common stock is the purpose of a capitalist business's management
- "Illiquidity is a capital crime"
- Capitalism defines the market as the arbiter of value
- Variance and time both correlate negatively with value

Valuation Theory – Technical Aspects

- **Market Based – Analogous to similar transactions**
  - Preferred by the US Courts
  - Ratio-ed based on sales/earnings/assets, as appropriate
  - Most general, requires research and judgment
- **Income Based – Present value of projected earnings**
  - Projected earnings are often unreliable
  - The preferred approach as exhibited by public markets for stocks
- **Asset Based – An accounting and/or replacement basis**
  - Easily done internally, appearance of objectivity, no synergy premium

Valuation Theory – Execution Aspects

- **Fair Market Value is the hypothetical condition of sale:**
  - Transaction is cash or cash-equivalent at current economic conditions
  - Buyer and Seller are adequately informed of all relevant facts
  - Buyer and Seller are free to or not to consummate transaction
  - When appropriate, a covenant not to compete is included in the transaction
  - Buyer and Seller are empowered to consummate transaction
  - There are similar transactions of Buyers and Sellers elsewhere in the economy
  - A particular Buyer having a specific motive/situation is not contemplated
  - A reasonable amount of time to achieve a the sale price has transpired

US Internal Revenue Regulation 20.2031-1(b)

High Impact Factors

- Economic Conditions
  - Prime Rate, Financing availability
  - Bull/Bear Sentiment, Sector's Favor
- Sellers' Situation
  - Distress Sale (proprietor illness, …)
  - Reputation Problem
- Structural Matters
  - Minority/majority/100% ownership
  - Voting versus non-voting stock
  - By-Law provisions
- Key People Availability
- Financial Condition
  - High debt
  - Low cash

Start-up Case (Market Based)

- **Situation:**

  A start-up of a pre-public company wants to get financing from Angels or Venture Capitalists, but doesn't know how to value their Company.

- **Process:**

  Look for referent company that recently went public. Compute the scale factor (their sales as a multiple of yours = x), lag factor (how many months until your IPO = lag), a market adjustment (such as: (NASDAQ now/then)*(Prime then/now) = n), and estimate the dilution (your outstanding shares now/IPO = d%).

Start-up Case (Market Based)

- **Solution: (PV stands for Present Valuation)**

$$PV = n * d\% * (\text{IPO value}) / (1 + cmdr)^{lag}$$

Where: cmdr is a factor between .025 and .065 depending on the competitiveness and attractiveness of your technology, market/marketing, and management.

- **cmdr Guidelines: (cmdr stands for compounded monthly depreciation rate)**
  - **Begin with cmdr = .045** (this is completely empirical)
  - **Compare your technology to the IPO, if better -.005; if worse +.005**
  - **Compare your market/marketing to the IPO, if better -.005; if worse +.005**
  - **Compare your management to the IPO, if much better -.01; if worse +.01**

Start-up Case - Financing Proforma

ROUND OF CAPITAL	Month	Amount Raised	Dilution	Capitalization	Insiders	Investor	Investor
				(incl. 100 options/mo.)		(return)	(multiple)
FOUNDER, FAMILY & FRIENDS	0	$ 30,000	100.0%	$ 30,000	100%	$ 19,964,508	665.5
ANGEL CAPITAL	3	$ 500,000	40.0%	$ 1,250,000	60%	$ 14,906,832	29.8
VENTURE CAPITAL (FIRST)	12	$ 3,000,000	33.3%	$ 9,000,000	42%	$ 19,831,411	6.6
VENTURE CAPITAL (SECOND)	24	$ 6,000,000	25.0%	$ 24,000,000	34%	$ 21,029,281	3.5
MEZZANINE FINANCING	42	$ 10,000,000	14.3%	$ 70,000,000	30%	$ 14,285,714	1.4
GOING PUBLIC	50	$ 20,000,000	16.7%	$ 120,000,000	25%	$ 20,000,000	1.0

		Shares (total)	Share Price	Appreciation (/month)	Appreciation (/year)	Investor (return/mo.)	Investor (return/yr.)
FOUNDER, FAMILY & FRIENDS	0	10,000	$ 3.00	181.6%	Meaningless	13.9%	376%
ANGEL CAPITAL	3	18,667	$ 66.96	18.2%	645%	7.5%	138%
VENTURE CAPITAL (FIRST)	12	29,800	$ 302.01	5.4%	89%	5.1%	82%
VENTURE CAPITAL (SECOND)	24	42,133	$ 569.62	5.1%	82%	4.9%	78%
MEZZANINE FINANCING	42	50,089	$ 1,397.52	4.6%	71%	4.6%	71%
GOING PUBLIC (100x split)	50	6,010,667	$ 19.96	Meaningless	Meaningless	Meaningless	Meaningless

Operating Case (Income Based)

- **Situation:**

  An ongoing closely-held company wants to sell out to a large conglomerate, but doesn't know how to value itself.

- **Process:**

  The really quick way to get your earning (after tax) and multiply them by the going "p/e ratio" of your industry on the public exchanges. That gives a quick upper bound on your evaluation, presuming you have no special growth factors. The detailed way is to project your next 5 years earnings And sum them to get a so-called 5 year payback. Some adjustments may be necessary.

Operating Case (Income Based)

- **Solution:**

  PV = (current industry p/e) * (your earnings) * (100% - illiquidity)

  PV = (N / 5) * (sum of next 5 years EBIT earnings)

  Where: illiquidity = discount for not having publicly tradeable shares
  N is the number of years for payback (if prime rate is high then N is low; use N = (100% - illiquidity)/prime).

- **Adjustments:**

  Optionally add: Current assets – Current liabilities – debt, where
  debt = debt/((1+interest)^(due-today)) for each debt, excluding leases

Family Case (Income Based)

- **Situation:**

  A family business which is not particularly proprietary (like a restaurant) wants to transfer control to relatives or business associates, but doesn't have any idea about what price to put on the business.

- **Process:**

  Determine the value of the fully depreciated assets plus the current assets minus the current liabilities minus the net present value of the debt. Then your argument will be narrowed to the intangible assets such as good will, "trade secrets" (recipes, for example), and location. The value of management is a factor that is ignored in this approach. It is also a good approach to evaluation of resource (oil, coal, lumber, …) rich businesses.

Family Case (Asset Based)

- **Solution:**

  PV = net assets + current assets + "good will" + "trade secrets"

  - current liabilities - debt/((1+interest)^(due-today))

- **Adjustments:**

  In a proprietorship, the buyer should consider "tying up" the former proprietor for the smooth transfer of command and "trade secrets" as well as an assurance that the assumptions of the evaluation are reasonable.

Losing Case (Potential Based)

- **Situation:**

  A losing closely-held company wants to sell out to a taker. Too many financial consultants tell them that their situation is hopeless and they should just liquidate (which may bring their shareholders very little).

- **Process:**

  This is a potential leveraged buy-out opportunity. This requires an investment banker to assess the situation. The keys are the organization, sales, competition, costs, and the "good will." Often, the banker will find hidden assets, like appreciated real estate, that can bail out the company, as well as, a gem, such as a synergistic partner. But decisive, bold, often painful, action is required.

Losing Case (Potential Based)

- **Solution:**

  Hire an investment banker or a turn-around consulting firm (not just a top consultant) to reconfigure the business and then seek an accommodation with creditors and proceed according to advice.

Dot.com Mania – A Retrospective

- **At the time based on the following flawed premise:**

  The brick and mortar world was now challenged to sell its goods through the internet which it couldn't do because the internet was too "high tech."

- **If you flow the brick and morter sales through the internet portals, you can rationalize the portals astronomical evaluations (almost)**

- **When IBM and then Barnes & Noble both proved that brick and morter companies could make web businesses, the game was over. When GE did it systematically, dot com died.**

Concluding Remarks

- Questions and Answers
- Thank you, again.

You can find a copy of this lecture (140 KB) on the Internet at:

http://globatech.com/valuation.pdf