



Growth. Protection. Succession.

BUSINESS AND CORPORATE LAW

FINANCING A HIGH-TECH BUSINESS

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Objectives

- Stages of Commercial Development
- Sources of Capital
- Basics of Corporate Finance
- Valuation
- Angel and Venture Capital Investing

Stages of Commercial Development

1. Pre-Seed
determining commercial potential of a concept or product
2. Seed/Startup
concept or product under development
not fully operational
in existence less than 18 months
3. Early
product or service in testing or pilot production
product may be commercially available
may be generating revenues
in business less than 3 years

Stages of Commercial Development

4. Expansion
 - product or service in production and commercially available
 - demonstrates significant revenue growth
 - may not be showing a profit
 - in business more than 3 years

5. Later Stage
 - product or service is widely available
 - company is generating on-going revenue & positive cash flow
 - probably profitable

Stages of Commercial Development

- Risks for High-Tech Businesses

Technical

Competitive

Managerial

Legal

Financial

Sources of Capital

- Correspond to stages of development
- Different motivations and risk tolerance

Sources of Capital

- Founders
 - Personal savings and personal loans
 - Second mortgage
- Friends and Family

Sources of Capital

- Grants

Small Business Innovation Research (SBIR)

Small Business Technology Transfer (STTR)

Phase I - up to \$100,000 for approximately 6-9 months support exploration of the technical merit or feasibility of an idea or technology

Phase II - up to \$750,000, for as many as 2 years, expand Phase I results. Only Phase I winners are considered

Sources of Capital

- Grants

Eligible “small business”:

American-owned and independently operated

For-profit

Principal researcher employed by business

Company size limited to 500 employees

Sources of Capital

- Bootstrapping

Never buy new what can be bought 2nd-hand

Never buy 2nd-hand what can be rented

Never rent what can be borrowed

Never borrow what can be begged

Never beg what can be salvaged

Ian MacMillan, Wharton Business School



Sources of Capital

- Seed Funds

Government sponsored

Support regional economic development

NYS Small Business Technology
Investment Fund

Excell Partners, Inc. (U of R)

Sources of Capital

- Angel Investors

High net worth individuals

“Accredited Investor”

net worth, or joint net worth with spouse, exceeds \$1M or income exceeding \$200K in 2 most recent years or joint income with spouse exceeding \$300K for those years and a reasonable expectation of the same in current year

Successful entrepreneurs and executives

Sources of Capital

- Venture Capital Funds

Pools of capital

Funded by institutions and high net worth individuals

Professionally managed

Limited duration – usually 10 years

Sources of Capital

Pre Seed	Seed/ Startup	Early	Expansion	Later
Founders Friends and Family	Grants Bootstrap Seed Funds Angels	Angels Venture Capital	Public Equity Private Equity Banks	Public Equity Private Equity Banks

Sources of Capital

Problem:

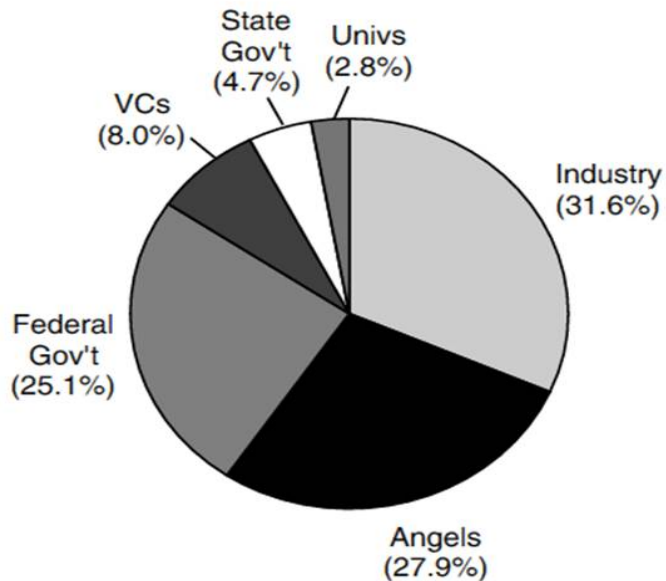
High-tech startups typically need substantial amounts of capital well before a professional investor is willing to invest



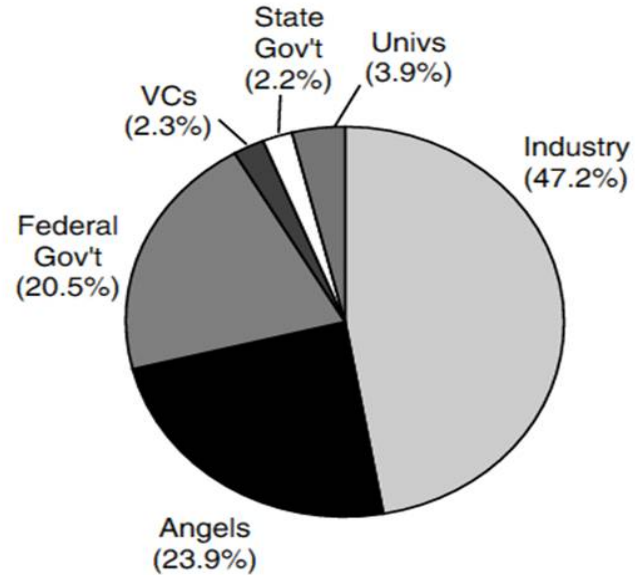
Sources of Capital

Estimated distribution of funding sources for early-stage technology development

Lower Estimate: \$5.4 Billion



Upper Estimate: \$35.6 Billion



Branscomb and Auerswald, *Between Invention and Innovation: An Analysis of Funding for Early-Stage Technology Development*, Gaithersburg, MD, National Institute of Standards and Technology, 2002, p.23

Basics of Corporate Finance

- Debt vs Equity

Debt - money borrowed and to be repaid over a period of time, usually with interest

Equity - ownership interest in the business

Basics of Corporate Finance

- Ownership is a bundle of rights

Economic rights

to portion of any profits distributed

to portion of assets of the business in liquidation

after all debt is repaid

Control rights

to elect directors or managers

to vote on certain transactions affecting economic rights (mergers, amendments to certificate of incorporation)

Basics of Corporate Finance

- Debt
 - limited downside/ limited upside
 - low risk/low reward (relatively)
- Equity
 - limited downside/ unlimited upside
 - high risk/high reward (relatively)

Basics of Corporate Finance

- Debt
 - Bank loan, notes, bonds, debentures
- Equity
 - Corporation – stock
 - LLC – membership interest
 - LP – limited partnership interest

Basics of Corporate Finance

- Hybrid Securities
 - Preferred stock
 - Convertible debt
- Derivative Securities
 - Stock options
 - Warrants

Valuation

“An art and not a science”

Valuation

- The Venture Capital Method

Post-Money Valuation = Money + Pre-Money Valuation

$$\text{Post-Money Valuation} = \frac{\text{Terminal Value at Year N}}{\text{ROI at Year N}}$$

Post-money valuation - valuation of the company immediately after round of investment is closed

Terminal value - valuation of the company at exit (the proceeds of the sale of the company via a merger or acquisition or an initial public offering and at which time the ownership can be liquidated)

ROI - cash-on-cash return on investment expected for investment in the year of exit, expressed as a multiple of cash invested (30x)



Valuation

- Estimating terminal value

Price to Earnings (P/E) Ratio

estimate revenues in Year N

use industry standards for earnings as % of revenues

find P/E ratios for companies in same business

multiply estimated earnings by P/E ratio



Valuation

- Estimating terminal value

Example

estimate target achieves revenues of \$50M in the Year N

companies in same business earn 15% after-tax earnings

market value for companies in same business typically 12x earnings (P/E ratio of 12)

terminal value in Year N at $\$50M \times 15\% \times 12 = \$90M$



Valuation

- Determining pre-money valuation

Assume \$0.5M investment

$$\begin{aligned}\text{Post-Money Valuation} &= \frac{\text{Terminal Value at Year N}}{\text{ROI at Year N}} \\ &= \$90\text{M} / 30\text{x} \\ &= \$3\text{M} \\ \text{Pre-Money Valuation} &= \text{Post-Money Valuation} - \text{Money} \\ &= \$3\text{M} - \$0.5\text{M} \\ &= \$2.5\text{M}\end{aligned}$$

Valuation

- Also determines % ownership interest in the company

$$\begin{aligned}\text{Investor's Interest} &= \text{Money} / \text{Post-Money Valuation} \\ &= \$0.5\text{M} / \$3\text{M} \\ &= 17\%\end{aligned}$$

Valuation

Since 2001, pre-money valuations at seed-stage investments by VCs have remained around \$2M

\$1M-\$3M range for seed/startup companies that angels expect to grow to \$50M-\$100M over 5 to 8 years

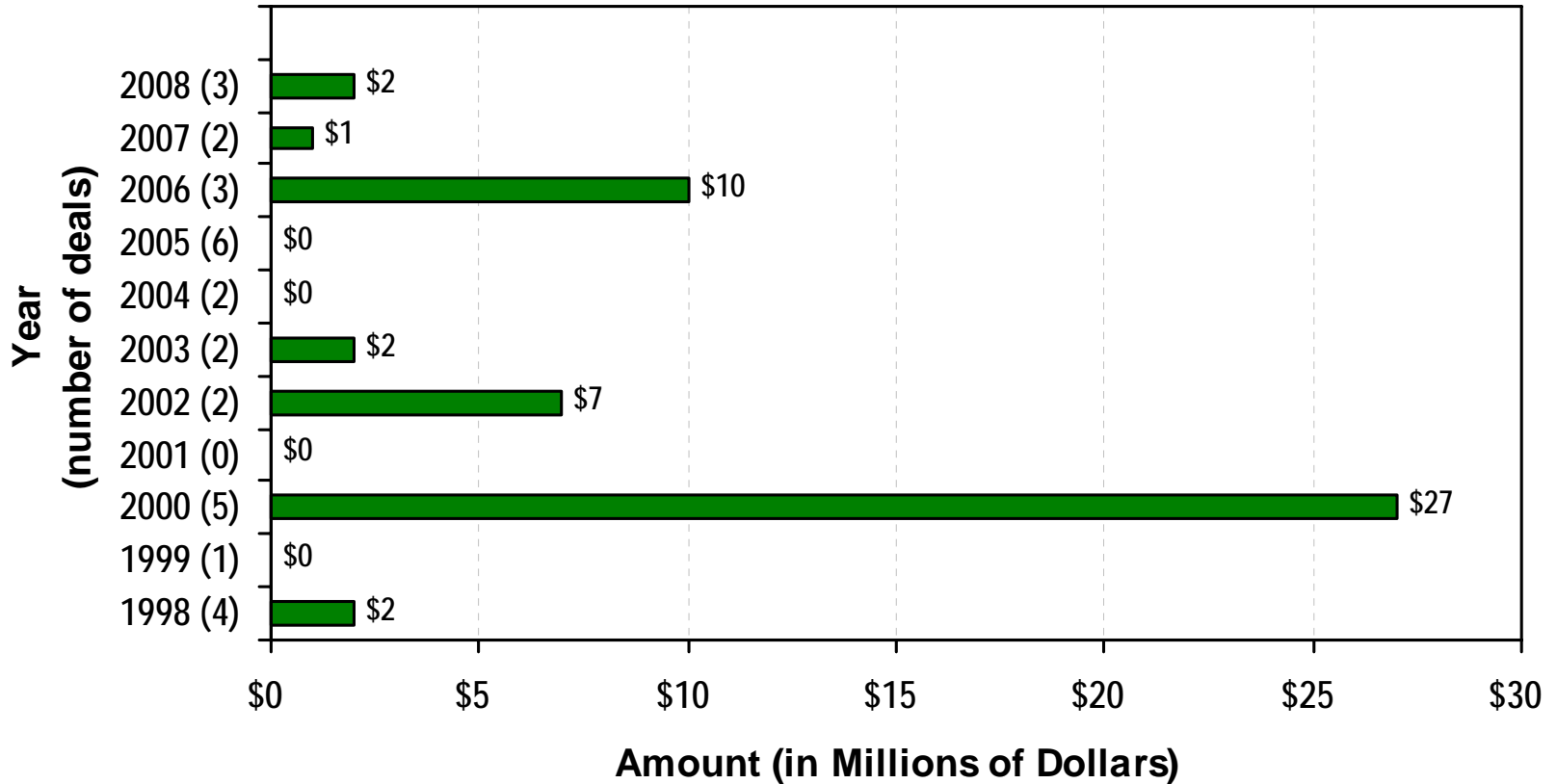
Valuation

**Median Pre-Money Valuation by Round Class
(\$ Millions)**

Round	2000	2001	2002	2003	2004	2005	2006
Seed	\$5.00	\$3.18	\$2.50	\$2.00	\$1.70	\$1.80	\$2.40
First	\$12.20	\$8.00	\$6.00	\$4.90	\$5.80	\$5.50	\$6.00
Second	\$40.00	\$18.00	\$13.00	\$13.03	\$12.25	\$14.85	\$18.00
Later	\$89.50	\$40.00	\$24.00	\$20.40	\$29.00	\$32.00	\$35.40

Courtesy DowJones VentureOne

Valuation



PricewaterhouseCoopers MoneyTree™ Report: Seed & Start Up Stage Deals in Upstate NY



Angel and Venture Capital Investing

- High ROI Targets

Angels

5x-10x ROI (assuming dilution of 3x-5x) in 4 to 8 years or 30x ROI without dilution

VCs

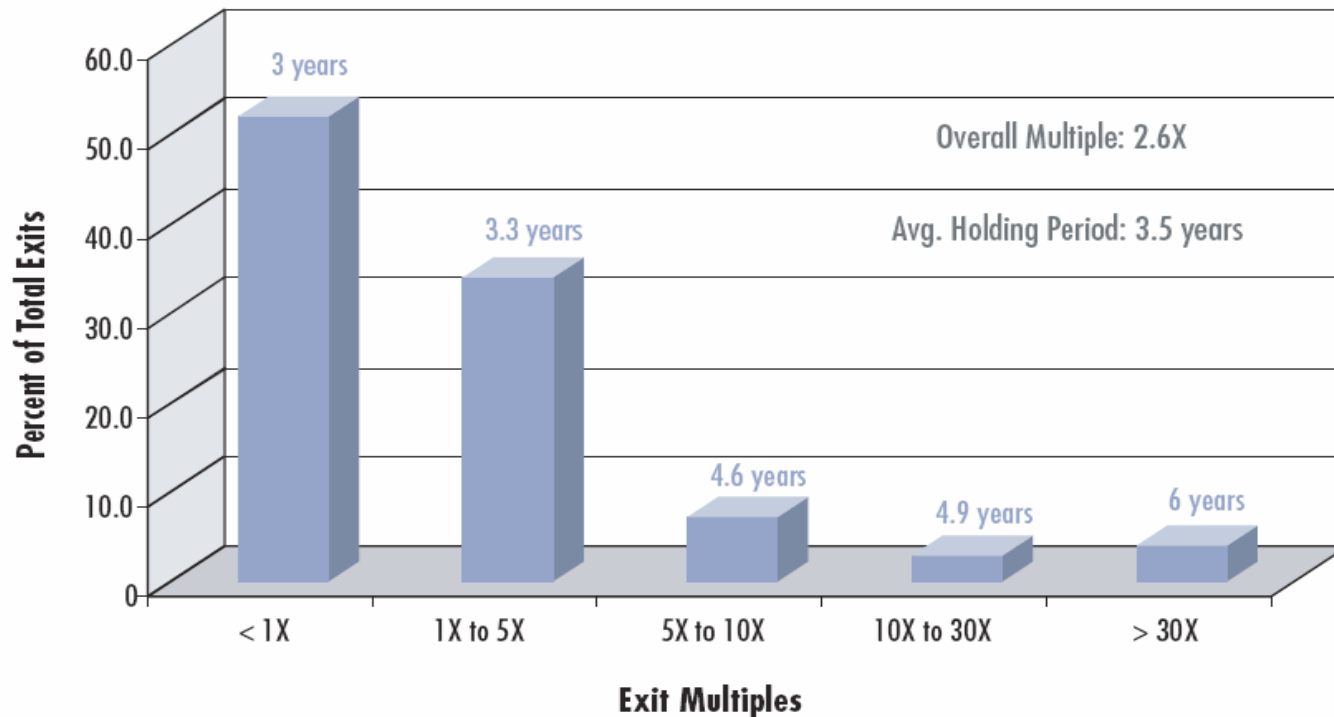
10x-12x ROI in 5-7 years in startups

5x-7x ROI in 4-5 years in early stage

Angel and Venture Capital Investing

Recent survey found 52% of all angel exits were at a loss

Distribution of Returns by Venture Investment



Wiltbank and Boeker, *Returns to Angel Investors in Groups*, November 2007, Ewing Marion Kauffman Foundation, p.3



Angel and Venture Capital Investing

- Spread risks across portfolio

VC rule of thumb - 15% of companies account for 85% of all returns

- IRR of at least 25% per year on portfolio to attract investors

Further Information

- National Venture Capital Association
<http://www.nvca.org>
- Kauffman™ eVenturing
<http://eventuring.stage.kauffman.org/eShip/appmanager/eVenturing/eVenturingDesktop>
- Excell Partners, Inc.
<http://www.excellny.com>
- SBIR Program
<http://www.sbir.gov/about/index.htm>
- How to Change the World - Guy Kawasaki's Blog
<http://blog.guykawasaki.com>



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