

E145 2008 Session 9 Venture Finance

Professor Tom Byers

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TECHNOLOGY VENTURES



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Meet the VCs!



Ravi Belani
DFJ
www.dfj.com

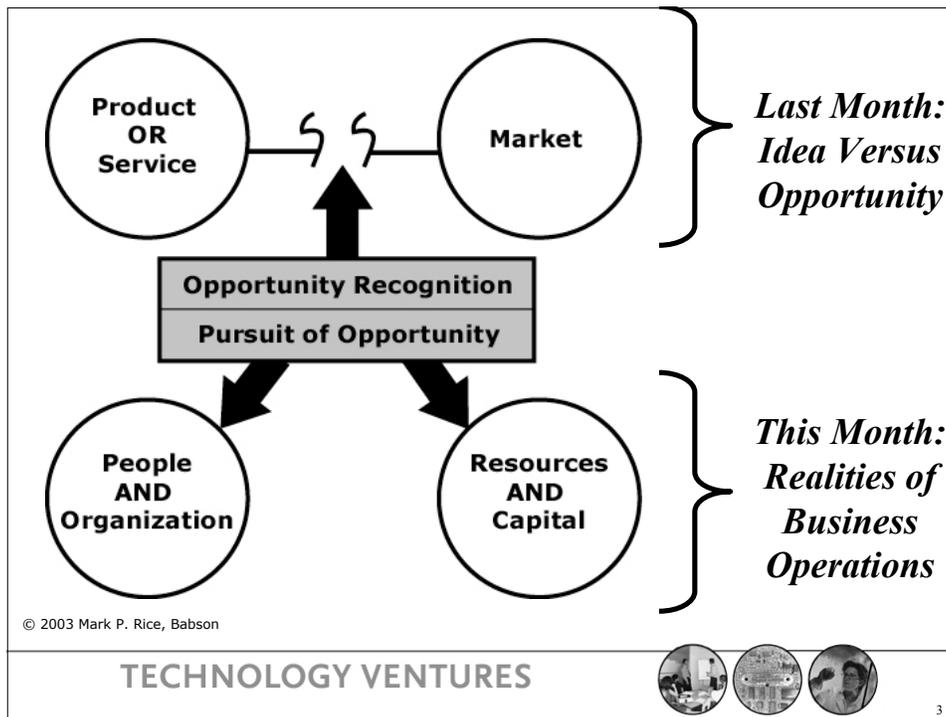


Chi-Hua Chien
Kleiner Perkins
www.kpcb.com

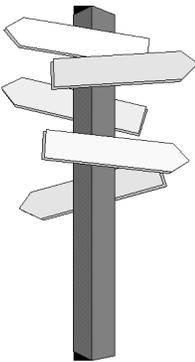
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Today's Agenda



Part I. What is the purpose of a *business plan*?

Part II. Given the nature of the business and the objectives of the founders, what *capital* resources are needed to build the venture?

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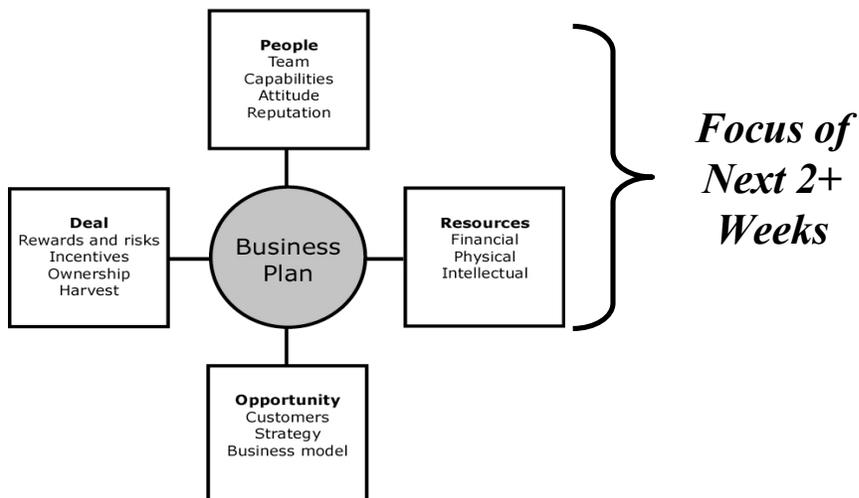
Part I.

What is the purpose and actual value of a business plan?



Recall Sahlman's Model

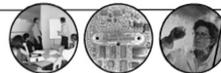
Context (economy, regulatory, industry)



Outline of a Business Plan

- Executive Summary
 - Market Analysis
 - Vision and Concept (including Technology)
 - Competitive Positioning and Marketing
 - Business Model
 - Organization
 - Financial Projections
 - Ownership
- } *Focus of
Next 2+
Weeks*

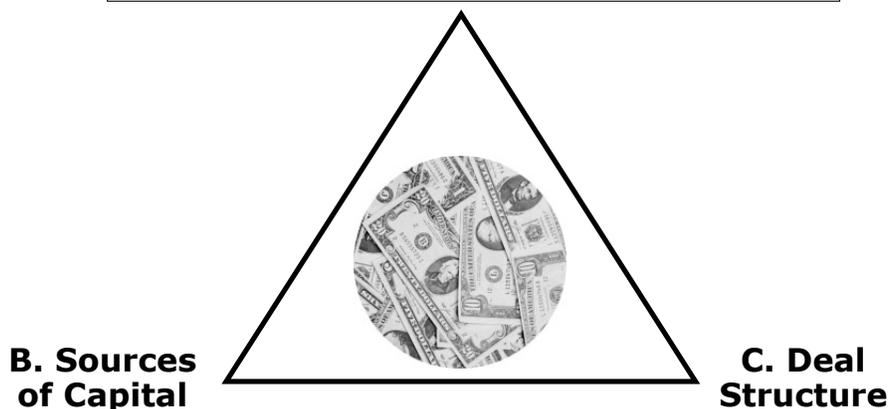
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Part II. How Tech E's Finance Their Ventures ... The "ABCs"

A. Amount of Cash Needed and Purpose



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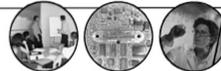
A. Amount of Cash ... Two Key Questions

#1 How much money is needed for this "round" of financing?



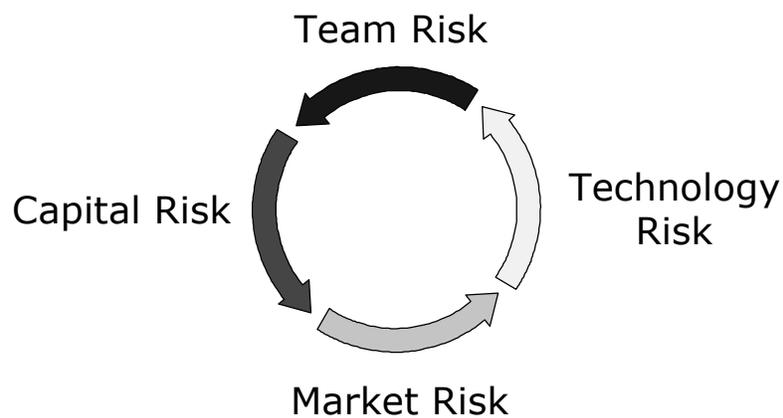
Typical Financing Stages (or Rounds):
Seed → Early → Mezzanine → Late (e.g., IPO)

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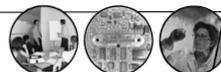


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#2 Which "white hot" risk(s) is to be reduced with this money?

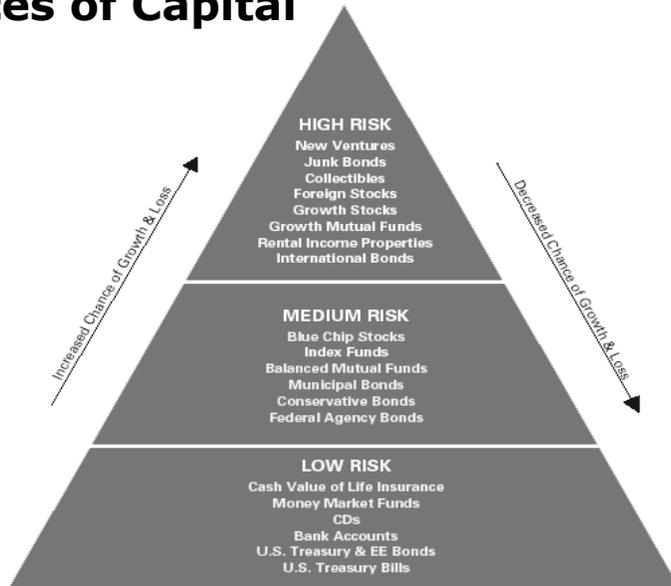


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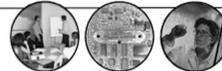


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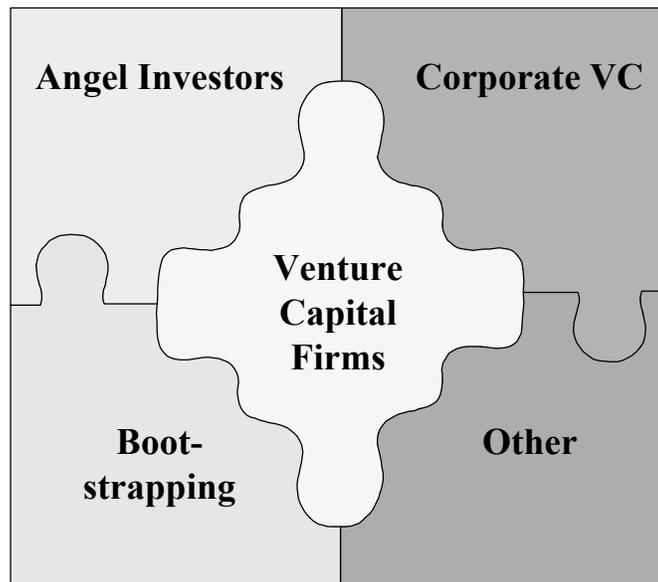
B. Sources of Capital



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A Deeper Look at Venture Capital

INSTITUTIONAL INVESTORS
(Limited Partners – e.g.
University Endowments, Pension Funds)



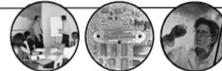
VENTURE CAPITALISTS
(Finding and Funding
Entrepreneurial Companies)



ENTREPRENEURS
(Starting and Building
Companies)



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Source: Andy Rachleff

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US Venture Capital and the Economy

- GDP: about \$12.5 trillion annually
- Hedge funds: \$1 trillion over 3 years
- Mutual funds: \$136 billion in 2005
- Buyout funds: \$86 billion in 2005
- *Venture capital?*

\$25 billion in 2005... just 0.2% of GDP.

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Source: BLS website, Investment Company Institute, Thomson Financial, NYCA

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But VC-Backed Companies = 17% of GDP



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At Year End	# Venture Firms	Capital Under Mgt
1970	28	\$1B
1980	89	\$4B
1990	398	\$31B
2000	887	\$223B
2001	949	\$252B
2005	866	\$259B

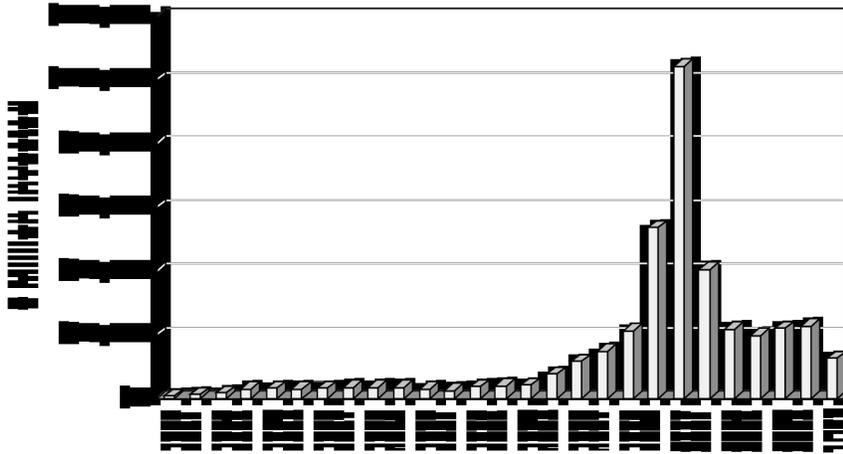
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Source: 2006 NVCA Yearbook, prepared by Thomson Financial, page 18



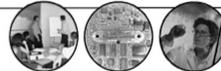
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After a Peak in 2000, Now on a \$25B+ Annual Pace in US



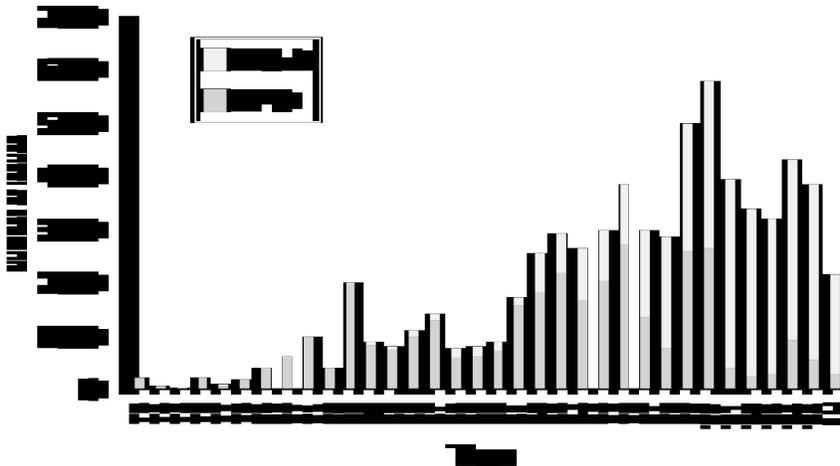
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Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report



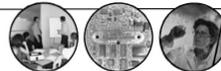
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Venture Exits in US



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Source: Thomson Financial/National Venture Capital Association



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Historical Comparison of VC Style

	US Model	International Model (e.g., Europe)
People	<i>company founders and builders</i>	<i>consultants and bankers</i>
Stage	seed	early (A Round), but not seed
Provide	"value added"	"just money"
Style	hands on	hands off
Objective	create very large companies	create medium sized companies
Philosophy	maximize upside	minimize downside
Returns	<i>target a small number of big winners – home run investing</i>	believe returns can be earned across a portfolio

Reference: Mowbray Capital, London

C. Two Key Questions Regarding the "Deal"

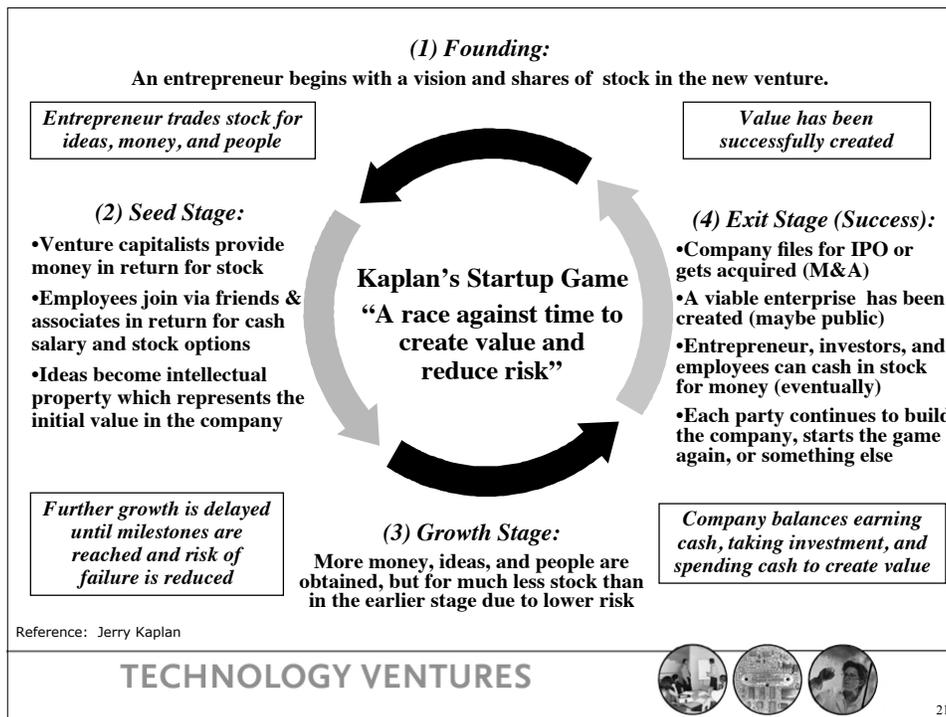


1. *What percentage of the company do the investors receive for their cash?*
2. *What special terms and conditions are necessary to compensate them for the risk?*

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A Simple Venture Finance Example

- Roma's hot startup requires \$10 million in order to form its business. She expects to earn \$5 million in its fifth year.
- Randy's VC firm has reviewed the company's business plan and believes that he is entitled to a 50% return on his investment. Hint: how many "times" must his firm's money grow in 5 years?)
- Publicly traded companies in this category and industry trade at an average of 30 times earnings (PE ratio). There is no material difference between these companies and Roma's startup.
- What portion of the company should Randy's VC firm receive today? Hint: what is future value of that investment?

1. **Value of VC Investment in Year 5** = $\$10 \text{ m} \cdot (1+50\%)^5 = \mathbf{\$76\text{m}}$
2. **StartUp's Value in Year 5** = $\$5 \text{ m} \cdot (\text{P/E of } 30) = \mathbf{\$150\text{m}}$
3. **VC Firm's Share Today** = **Step 1/Step 2**
= $\mathbf{\$76 \text{ m} / \$150\text{m} = \sim 50\%}$
4. **"Post-Money" Value Today** = $\mathbf{\$10 \text{ m} / 50\% = \$20 \text{ m}}$

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A Multi-Stage Venture Finance Example

Time

I

II

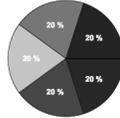
III

IV

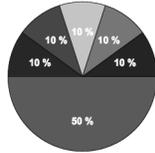
V



1mm shares
for each
founder
 $\Sigma=3\text{mm}$
shares @
\$0.001 ea.
Value=\$3k



+1mm shares
each for CEO
& employees
 $\Sigma= 5\text{mm}$
shares @ \$0.01
each
Value=\$50k



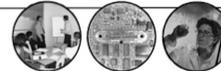
+5mm shares
for first VC
firm
 $\Sigma=10\text{mm}$
shares @ \$1.00
each
Value=\$10mm
Use of \$: R&D

Post-money value = \$10mm

Pre-money value = ?

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Note: not to scale



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A Multi-Stage Venture Finance Example

I

II

III

Time

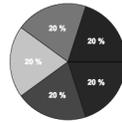
IV

V

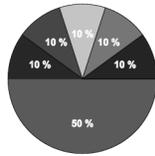


1mm shares
for each
founder
 $\Sigma=3\text{mm}$
shares @
\$0.001 ea.
Value=\$3k

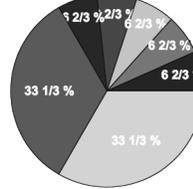
Note: not to scale



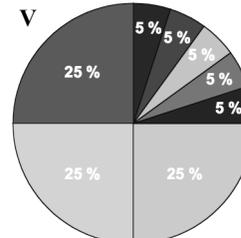
1mm shares
each for CEO
& employees
 $\Sigma= 5\text{mm}$
shares @ \$0.01
each
Value=\$50k



5mm shares
for first VC
firm
 $\Sigma=10\text{mm}$
shares @ \$1.00
each
Value=\$10mm
Use of \$: R&D



+5mm shares
for second
round VCs
 $\Sigma=15\text{mm}$
shares @ \$5
each
Value=\$75mm
Use of \$: Mktg.



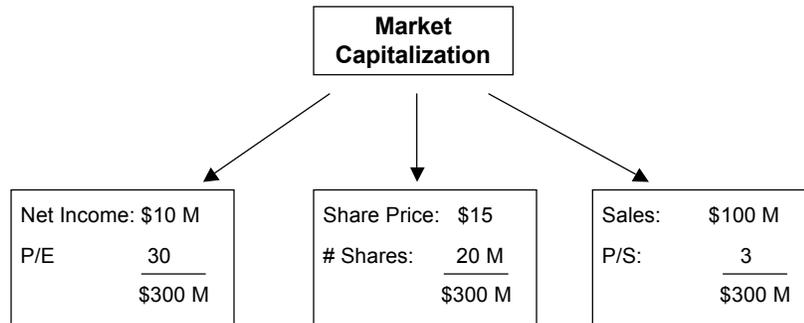
+5mm shares for
sale to public in
IPO
 $\Sigma = 20\text{mm}$
shares @ \$15.00
each
Value=\$300mm
Use of \$: Operations

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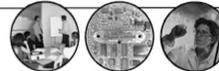


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Preview of Tonite's Workshop B



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Q&A



Ravi Belani
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Chi-Hua Chien
Kleiner Perkins
www.kpcb.com

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