
Financing Before Venture Capital

Ulf Axelson
Morten Sørensen

Question

- Fact: Bhide (2000) states that only 4% of inc. 500 companies financed by venture capital
- How do early stage ideas / entrepreneurs get financed?

Definition: Types of Entrepreneurs

- **“Boring” Entrepreneurs:** Start-ups that could never receive VC financing
 - Typically self-employed entrepreneurs, consultants, tax-shelters, etc.
 - 700,000 businesses started in US each year
- **“High-Tech” Entrepreneurs:** Start-ups that VCs may invest in
- We are less interested in “boring” entrepreneurs

Definition: Stages of start-ups

- **Mature start-up:** Company that is ready for VC financing (Bhide, 2000):
 - Founders have exceptional qualifications
 - Firm has exceptional and specific idea
 - See path to exit within 10 years
 - Evidence of a “large and growing market”
- **Immature start-Up:** Company that is not yet ready for VC financing
 - “Ideas are still half-baked” (Hellmann, Perotti, 2005)

What is pre-VC financing?

- **Pre-VC financing:** Providing “resources” to a “high-tech” entrepreneur that is too “immature” to receive VC financing
- **Classical financing:** Capital to buy assets, i.e., machinery, salary, or marketing campaign
- **Non-classical financing:** Provide complementary resources, i.e., testing labs, know-how, creative environment, etc...

Classical Finance Sources

- Own capital / credit cards
 - Bootstrapping / organic growth
- Family and friends
- Angel investors
- Bank loans
- Government loans / subsidies
 - SBIR, STTR programs

Empirical Evidence

- Bhidé (2000) considers Inc 500 companies. Primary sources of initial financing are:
 - 4% VC
 - 3% Angels
 - 55% personal savings
 - 7% bank loans and mortgages
 - 12% family and friends
- 25% sought VC capital, but failed
- Entrepreneurs start with inside financing and shift to outside financing (Fluck, Holtz-Eakin, and Rosen (1998))

Impediments to financing

- Baseline: Pre-VC Financing same as standard financing, but problems larger:
 - Asymmetric information (two-sided)
 - Little collateral (inalienable human capital)
 - Incomplete contracts
 - Hold-up problems
 - Moral hazard

Bootstrapping / Own Capital

- Bhide (2000): 80% of companies in his study “bootstrapped their ventures with modest funds derived from personal savings, credit cards, second mortgages, and so on”
- Advantages:
 - Fewer agency costs
 - Allows complete freedom to experiment (no contractual restrictions, but incentives?)

Bootstrapping (cont.)

- Disadvantages:
 - Limited access to capital
 - Large risk-bearing for entrepreneur
 - “Overconfident” entrepreneurs may continue negative NPV projects
- Wealth promotes entrepreneurship?
 - Is income outside option or multiplier?
 - Is VC substitute or complement?

Family and Friends

- More or less monitoring and enforcement?
 - Long-term relationships versus forgiving
- More or less asymmetric information?
 - Knows type versus overconfidence in your son
- Less diversification and expertise?

Angel Finance

- Estimates suggest Angels provide more capital than VCs
 - Small business association estimates that 250,000 angels commit \$20bn each year to over 30,000 private companies
 - Fenn and Liang 1998: 2/3 of high tech IPOs backed by angels, 1/3 by VCs (some overlap)
- Invest smaller amounts / less follow up investments than VCs
 - Although there are Network of Angels / Informal Networks that “syndicate”
- No systematic data for Angel investments

How do angel contracts look?

Andrew Wong (2002): “Angel Finance: The Other Venture Capital”

- Firm <1 year old when getting angel financing
- Do not rely on as much control mechanisms as VC:
 - Seldom receives board seats
 - Not much staging
 - Common equity, without anti-dilution or contingent equity claims
- But allows entrepreneur to hold larger stake
- Close geographical proximity (informal substitute to control?)

Angel finance (cont.)

- Advantages:
 - Provides expertise and advise?
 - Invests own capital and is not intermediary
 - Finance “just for fun”
- Disadvantages:
 - Limited capital

Comparing these financing forms to VC financing

- Compared to VC contracts:
 - Investors have fewer control rights
 - Contracts appear less contingent
 - Funding less tied to future relationships
- But, problems are worse? Puzzle?

Government (SBIR, STTR)

- Information spillovers and externalities in provision of innovations (Arrow, 1962)
- Government subsidies may mitigate this problem
 - Lerner (2000) find that SBIR program lead to higher growth but cautions against this “Problematic Venture Capitalist”
 - Political, regulatory, and adverse selection problems create distortions (Laffont, Tirole 1993)
 - But, in 1999 CIA founded venture capital branch “In-Q-Tel”
- Should government invest directly or encourage wealth creation?

Unconventional Finance View

- Financing is also provision resources
 - Typically complementary assets
- Examples are:
 - Entrepreneurial education and know-how
 - Creative environment
 - Infrastructure
 - Incentive and organizational structures
 - Commitment mechanisms

“Entrepreneurial Education”

- “Fairchild” view versus “Xerox” view of corporate spawning (Gompers, Lerner, Scharfstein 2005)
 - Fairchild view: Entrepreneurial companies educate other entrepreneurs and help spawn new companies
 - Xerox view: Companies resist funding new ideas and entrepreneurs are forced to leave
 - Empirically, Fairchild appears to dominate
- “Entrepreneurial education” is important resource

Creative Environments in Corporations

- Google gives engineers 20% of their time to work on own projects
- Corporations may provide “infrastructure” for experimentation and learning. Why?
 - May be motivated by synergies or spillovers from these activities
 - Stern (2005) find that companies that provide more innovative opportunities pay lower salaries
 - Softa Group: Financing invention by mundane side business

Creative Environments in Universities

- Universities may finance “creative environment”
 - Aghion, Dewatripont, Stein (2005): Universities commit to not interfere and this promotes experimentation
 - Hellmann, Perotti (2004): Open exchange of ideas increases success probability (but risk that ideas are stolen)
- Universities have adopted more aggressive patenting policies

Theoretical Considerations

- Why do these firms not get VC financing?
 - Negative NPV
 - Hold-up problems
 - VCs organization
 - Contractibility

END

- A big thank you to the organizers!