TOPICS IN EQUITY FINANCING: VENTURE CAPITAL, IPOS, AND SEOS

Equity Financing Sources

- **“Internal equity”**
  - — From the entrepreneur himself/herself, immediate family and friends
  - — Usually makes up most/all of the initial equity capital for a new business
- **“External equity”** usually comes later, from…
- **Private equity sources**
  - — Angel Investors
  - — Venture Capital Firms
  - — Institutional Investors
  - — Corporate Investors
- **Public equity sources**
  - — Public stock market investors (if publicly listed on an exchange)

Private External Equity Sources (cont.)

- Angel Investors:
  - — Individual investors who buy equity in small private firms
  - — Invest their own money
  - — Usually minority (<50%) investors with limited direct control or involvement
- Venture Capital:
  - — VC funds raise money from other investors (pension funds, endowments, wealthy individuals), then invest that money in young companies
  - — The investors are called *limited partners*; the partners in the fund who decide on investments are called *general partners*
    - General partners usually charge the investors a fee of “2 and 20”
  - — Tend to buy convertible preferred stock, or convertible debt in exchange for their investment
    - Why?
  - — Often demand a great deal of control in the companies they invest in
    - Because they often don’t own shares with voting rights, their board seats and voting rights usually agreed on separately
  - — Examples: Kleiner Perkins, Draper Fisher Jurvetson, Sequoia Capital, Andreesen Horovitz

Venture capital deals are becoming larger as companies stay private longer

Before 2005, deals of even $50 million were quite rare.
Nowadays, $200 million+ deals are no longer uncommon.

Equity Financing Sources (cont.)

- Institutional Investors:
  - Pension funds, insurance companies, endowments, and foundations
  - May invest directly in a private company, or indirectly as an investor in VC funds
- Corporate Investors:
  - Many established corporations purchase equity in younger, private companies
  - Emphasis is usually on achieving strategic objectives rather than maximizing investment returns

Deciding whether to raise external equity

- Funding your firm with new equity capital, be it from an angel or venture capitalist, involves a tradeoff:
  - Benefit: The firm gets capital that it can use to grow further
  - Cost: You must give-up part of the ownership
- Investors also often contribute more than “just money”: e.g., connections and expertise

An angel investor offers to invest $500,000 for a 25% stake in your company

How much is your company currently worth?

Pre-money vs. Post-Money

- "Post-money" valuation
  - Implied total value of the company after raising new equity
  - Dollar amount of investment divided by the equity stake
- "Pre-money" valuation
  - Implied value of the company before the new money was raised
  - Post-money valuation less the newly raised cash

“Shark Tank” example

- In “Shark Tank”, the sharks usually refer to post-money values, but the more important valuation to the entrepreneur should be the pre-money
- The company “CordaRoy’s” asked for $200k investment for a 20% stake
  - Post-money value: $1 million
  - Shark comment: “You think that your company is worth $1 million dollars!”
  - No! This valuation would mean that company is currently worth $800k (pre-money)
  - It’s worth $1 million only after the shark has put in an additional $200k cash in the business
- Lori Greiner offered $200k for a 58% stake in CordaRoy’s
  - Post-money value: $344k. Pre-money value: $144k

Which offer implies a higher valuation?

- $200,000 for a 20% stake
  - Post-money: $1M
  - Pre-money: $800,000

- $600,000 for a 50% stake
  - Post-money valuation: $1.2M
  - Pre-money: $600,000

- What's the value of the entrepreneur's remaining stake in either case?

Considerations when structuring a VC deal

- Agreeing on relevant numbers (valuation, %ownership)
- Financing dispersed in “stages”
- Ensuring strong incentives for management
- Control: Board seats, votes, etc.
  - —Control often contingent on hitting certain targets
  - —Agreed separately from share ownership

Stage Financing

- A start-up requires an investment of $5 million to grow
- VC fund decides to invest $1 million for 50%
- If this first stage ($1 million) is successful, a second stage (additional $4 million) will be needed

Assets		Liabilities	
Cash from new VC equity	1	New VC equity	1
Other assets (pre-money)	1	Entrepreneur's equity	1
Value	2	Value	2

- Why use stage financing?
  1. Option to abandon if unprofitable
  2. Option to expand if profitable at second stage
  3. Management has incentive to work hard to ensure continued investment

Stage Financing (cont.)

- Suppose that the firm performance is promising after the first stage and the second stage is needed
- Before the second stage investment, firm is worth $10 mil
- Entrepreneur holds ½ of old equity = $5 mil

Assets		Liabilities	
Cash from new VC equity	4	New VC equity	4
Other assets (pre-money)	10	VC equity from 1st stage	5
		Entrepreneur's equity	5
Value	14	Value	14

- After 2nd round of financing: entrepreneur holds 5/14; VCs holds 9/14 of equity
- Many ventures never get to the second stage!
- If second stage is successful, then there is often a third stage or the company goes public (IPO) or is sold to another firm

Choice of Securities in VC

- **Convertible preferred** stock is particularly common in VC deals
- Why?
  - VC has higher priority claim than entrepreneur on the downside
  - VC can convert into common stock at a future date so the VC then participates on the upside
- The option to convert makes valuation harder
  - Can become even more complicated if firm also has convertible loans, warrants, options compensation for managers, etc…

Exiting an Investment in a Private Company

- "Exit Strategies":
  1. Acquisition by another company
  2. Sell ownership stake to another investor
  3. IPO (Initial Public offering)

Initial Public Offerings (IPOs)

An initial public offering (IPO) is the process whereby a firm issues stock to the public and becomes listed on an exchange

Benefits of becoming a public firm:

- Greater liquidity for the shares (important to investors)
- Better future access to capital (important to firm)
- Greater publicity for firm

Costs of becoming a public firm:

- Shareholders become more dispersed (may increase agency problems)
- Regulatory requirements (accountants, lawyers, etc.)
- More public information about firm (could be competitive disadvantage)
- Possible short-term pressures from reporting quarterly earnings

Primary vs. Secondary shares

- Primary Shares
  - New shares issued by a company
  - Raises capital for firm
- Secondary Shares
  - Shares sold by existing shareholders
  - Money for investors, founders, employees with shares
- No shares for sales
  - "Direct listing"
  - Spotify first large company to try!

Example: Google's IPO (2004)

https://www.sec.gov/Archives/edgar/data/1288776/000119312504143377/d424b4.htm

- 14,142,135 primary shares
- 5,462,917 secondary shares
- Offering price of $85, of which $2.39 to underwriters
- Shares before offering: 257,077,508
- How many shares exist after offering?

Typical IPO Process

1. Choose underwriter(s) that provides the company with financial & procedural advice, sells issue to the public
   - "Lead Underwriter"
   - "Syndicate"
2. File a "registration statement" (called S-1) with SEC that gives info on the proposed offering, firm's history, financials, existing business, and plans for the future
   - Here's Facebook's S-1 (from their IPO in 2012): https://www.sec.gov/Archives/edgar/data/1326801/000119312512034517/d287954ds1.htm
3. Conduct "road show" where firm's executives and bankers talk to potential investors to assess demand for the IPO
   - Here's one CEO's story about their IPO process and road show: https://www.redfin.com/blog/2018/01/diary-of-an-ipo.html
4. Decide on a price to sell the shares and allocate shares among interested investors (typically big institutions)

IPO Puzzles

- Four IPO puzzles:
  1. Underpricing of IPOs
  2. “Hot” and “Cold” IPO markets
  3. High underwriting costs
  4. Poor long-run performance of IPOs

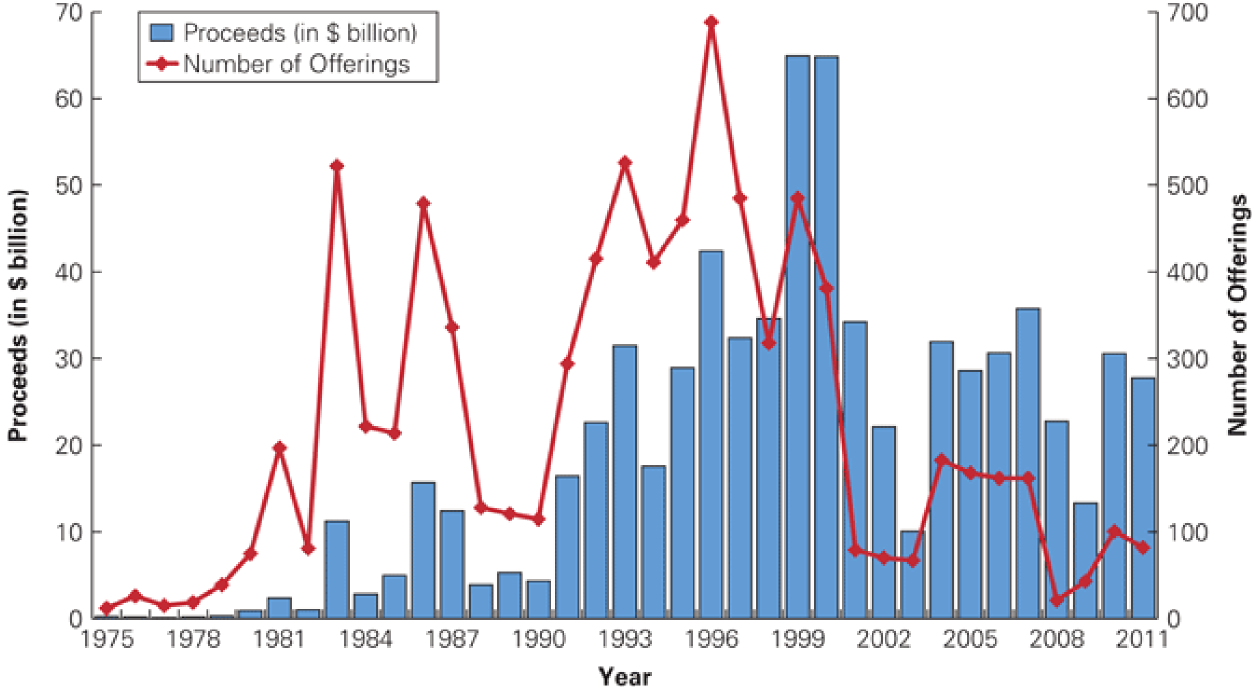
(1) Underpriced IPOs

- Price in U.S. aftermarket on average almost 20% higher at the end of the first day of trading

- Who wins and who loses because of underpricing?

(2) “Hot” and “Cold” IPO Markets

- Some years firms and investors seem to favor IPOs; at other times firms appear to rely on alternative sources of capital



(3) High Cost of Issuing an IPO

- In the U.S., the discount below the issue price at which the underwriter purchases the shares from the issuing firm often around 5%
- This fee is large!
  - Especially considering the additional cost to the firm associated with underpricing
- Fee has recently been coming down for the very largest IPOs
  - E.g., Facebook and Alibaba paid fees closer to 1%

(4) Poor Post-IPO Long-Run Stock Performance

- Newly listed firms on average tend to have poor returns over the following 3-5 years after their IPOs
- Perhaps due to asymmetric information and market timing by the firms?
  - But why didn’t the people who bought into the new stock take that into account?
  - And why aren’t more people trying to make money by shorting these stocks?

Seasoned Equity Offerings (SEOs)

- Seasoned Equity Offering (SEO): An already-public firm offer additional shares for sale
- Two kinds of SEOs:
  - Cash offer
  - Rights offer
- SEO Process follows similar step as IPO Process
  - Main difference: no need for underwriters to figure out the "correct price" for the shares

SEO pros and cons

Pros:

- Get new equity capital
- May improve capital structure if firm is over-levered (especially if capital is used to pay down debt)

Cons:

- Direct costs (underwriting fees often around 3%)
- Negative stock market reaction
  (on average, the market reacts negatively to news of an SEO by about 3%)

Read more: Some interesting articles

- Underwriters often stabilize the stock price: https://www.bloomberg.com/view/articles/2016-11-25/appeals-court-concludes-that-ipos-are-legal
- Analysts from the underwriters have different opinions from other analysts: https://www.bloomberg.com/view/articles/2017-03-27/banks-that-sold-snap-ipo-say-it-s-a-buy