

# 2220 - Entrepreneurial Finance and Venture Capital

Francisco Queiró  
Nova School of Business and Economics

Lecture #1

# What is Entrepreneurial Finance?



- Corporate Finance: large, publicly traded firms, with access to capital markets
- Entrepreneurial Finance: new, privately held firms, with high growth potential

# The standard corporate finance toolkit

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- Investment and financing decisions are largely independent
  - ▶ Modigliani-Miller
  - ▶ Exceptions: taxes, transaction costs, asymmetric information



# Some key differences in entrepreneurial finance

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  - ▶ Qualitative information plays a key role (the team, the product, etc)
  - ▶ Valuation: the VC method, importance of real options

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  - ▶ Funding is done in stages
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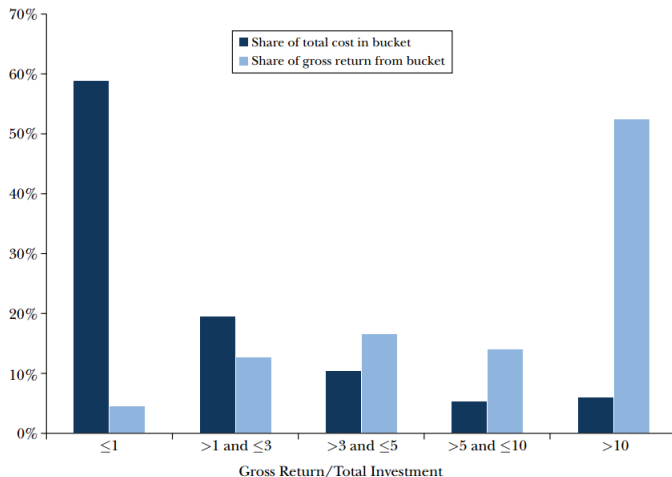
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  - ▶ Funding is done in stages
  - ▶ Greater emphasis on incentives and control rights (e.g. board seats, covenants)
- Value of investment depends strongly on funding decisions
  - ▶ How much money you raise
  - ▶ When you raise it
  - ▶ Who you it raise from
  - ▶ Under what terms

# What underlies these differences?

- 1 Extremely uncertain outcomes and concentrated returns
- 2 Intangible assets (ideas, human capital)
- 3 Asymmetric information
- 4 Investor value added

# Uncertain outcomes and concentrated returns

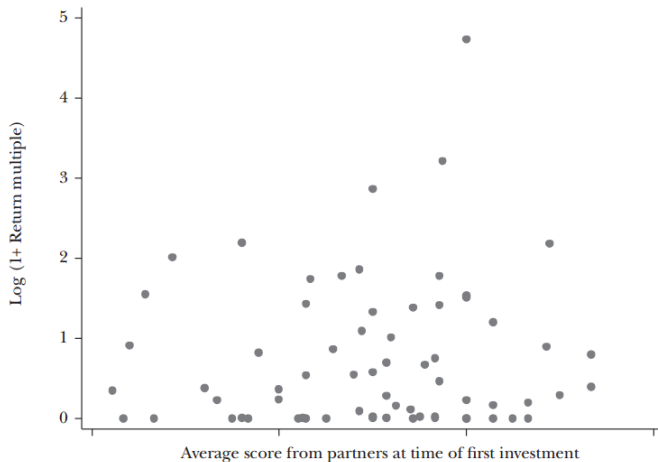
**Total Cost and Total Return for a Venture Capital Firm**



Source: Kerr, Nanda and Rhodes-Kropf. 2014. "Entrepreneurship as Experimentation" Journal of Economic Perspectives

# Uncertain outcomes and concentrated returns

B: Correlation between Scores and Outcomes



Source: Kerr, Nanda and Rhodes-Kropf. 2014. "Entrepreneurship as Experimentation" Journal of Economic Perspectives

## Bessemer Venture Partners



## Famous pivots





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- If venture fails
  - ▶ Intangible assets are either likely to be worthless (ideas) or investors cannot repossess them (people)
  - ▶ Patents can be repossessed but are often hard to value (could be worthless if the venture fails)

# Asymmetric information

- Adverse selection: entrepreneurs and current investors know more about business and themselves than outsiders do
  - ▶ How good is the product/service?
  - ▶ What do customers really think about it?
  - ▶ How good are the entrepreneurs themselves? Do they have what it takes?

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  - ▶ How hard are they working?
  - ▶ What risks are they taking?

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- These affect corporate finance as well, but are central in entrepreneurial finance

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  - ▶ Networks

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  - ▶ Experience
  - ▶ Networks
- As a result, they tend to be heavily involved in the businesses they invest in
  - ▶ Take board seats
  - ▶ Offer advice (operational, organizational, marketing, financial, etc)
  - ▶ Introduce potential clients, suppliers, investors, employees, etc
  - ▶ Monitor performance



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- VC funding plays a key role in high growth entrepreneurship & innovation

## Sources:

Will Gornall and Ilya Strebulae, "The Economic Impact of Venture Capital: Evidence from Public Companies," Stanford GSB Research Paper 15-55, (2015).  
Kortum, Samuel, and Josh Lerner. "Assessing the Contribution of Venture Capital to Innovation." RAND Journal of Economics, 2000, 674-692.

# Top 10 global companies by market cap

Rank		Name	Market Cap
1		 Microsoft MSFT	\$3.045 T
2		 Apple AAPL	\$2.883 T
3		 Saudi Aramco 2222.SR	\$2.001 T
<span>▲1</span>	4	 Amazon AMZN	\$1.777 T
<span>▼1</span>	5	 Alphabet (Google) GOOG	\$1.759 T
	6	 NVIDIA NVDA	\$1.631 T
	7	 Meta Platforms (Facebook) META	\$1.229 T
	8	 Berkshire Hathaway BRK-B	\$847.61 B
	9	 Eli Lilly LLY	\$635.73 B
<span>▲1</span>	10	 TSMC TSM	\$598.20 B





# Course logistics 1/2

- Instructor: Francisco Queiró (francisco.queiro@novasbe.pt, office: D220)
- Office hours: Wednesday 5-6pm
- Teaching Assistants:  
João Delgado (joao.c.delgado@novasbe.pt)  
Pedro Carvalho (pedro.carvalho43@gmail.com)
- Moodle enrollment keys
  - ▶ Section A: 2220A
  - ▶ Section B: 2220B
  - ▶ Section C: 2220C

## Course logistics 2/2

- Course materials: cases and problem sets, supplemented by lecture notes and articles. All will be posted on course website
  - ▶ Always bring cases to class
- Guest speakers (will have to join sections)
- Supplementary texts (optional):
  - ▶ Metrick and Yasuda (2021). Venture Capital and the Finance of Innovation
  - ▶ Wasserman (2013). The Founder's Dilemmas: Anticipating and Avoiding the Pitfalls That Can Sink a Startup
  - ▶ Marco Da Rin and Thomas Hellmann (2020). Fundamentals of Entrepreneurial Finance
  - ▶ Constance Bagley and Craig Dauchy (2012). The Entrepreneur's Guide to Business Law
  - ▶ Feld and Mendelson (2011). Venture Deals: Be Smarter than your Lawyer and Venture Capitalist
- Prerequisite: corporate finance or financial management

# Grading

- Class participation: 20%
- Case memos: 10%
- Pitching contest: 10%
- In class tests (individual): 15%
  - ▶ Test 1: March 15th
  - ▶ Test 2: April 22nd
- Final exam: 45%

# Class participation

- Course organized around analysis of case studies and problems in class
- To reward good discussion, participation will be 20% of grade
- TAs will help keep a record of your participation
- This requires that you
  - ▶ Prepare well for each class (around 2 hours)
  - ▶ Bring a name card to help us remember who said what
- Things to keep in mind
  - ▶ The quality of discussion and learning depends on your preparation
  - ▶ No clear-cut solutions; cases are often ambiguous like real world

# Some tips for participation

- Examples of good participation
  - ▶ Show your work (no need to "crack" the case)
  - ▶ Ask a good question
  - ▶ Bring a different point of view into discussion
  - ▶ The goal is to contribute to collective learning, more than having "right answer"
- How to prepare
  - ▶ Use the assignment questions in the memo
  - ▶ Think about the major decisions facing the protagonists
  - ▶ Be ready to walk through any calculations
- You will receive feedback mid-semester
- Absences
  - ▶ No adjustment to participation grade unless you have 4 or more justified absences over semester

## Case memos

- You should submit a 1-2 page memo about each case or problem set, by 10:00am the day of class
- Assignment questions will be provided
- May work in groups of up to 4
- Please submit memos on moodle (one person submits, add names at the top)
- Keep it simple: bullet points fine
- What we look for in case memos
  - ▶ Did you read the case?
  - ▶ Did you think about it? What problem(s) is the protagonist facing?
  - ▶ Basic analysis; run some numbers if necessary
- Graded satisfactory/unsatisfactory
- You can miss up to 3 memos with no penalty to your grade

# Startup pitching

- Choose an existing startup (list will be provided) or come up with your own idea
  - ▶ Some people have pitched startups they were actually planning to launch, and developed the project into their master thesis
- Pitch it to the class as a founder pitching to investors
- Rest of the class plays role of investors, asking questions
- Grade = my evaluation + class vote
- Work in small groups
- Will take place at the end of semester, more details soon

# Who this class is for

- Take this class if you are interested in
  - ▶ Applying financial tools and concepts to real world scenarios
  - ▶ Learning how to evaluate projects in uncertain and ambiguous contexts
  - ▶ Learning about how startups are financed
  - ▶ Learning about the venture capital industry



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- Do not take this class if you are interested in
  - ▶ Advanced mathematical models and tools

# Course outline

- Evaluating investment opportunities
  - ▶ People, market, product, business model and context
  - ▶ Financial implications of business models
  - ▶ Valuation
  - ▶ Experimentation, real options and multistage finance

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  - ▶ Deal structure and terms
  - ▶ Venture capital
  - ▶ Seed stage finance: angels, accelerators

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  - ▶ Venture capital
  - ▶ Seed stage finance: angels, accelerators
- Realizing returns
  - ▶ Selling the venture vs IPO vs staying private

# Some basic terminology: key players 1/2

- Venture Capitalists
  - ▶ Professional investors (General Partners) who raise funds from and invest on behalf of other investors (Limited Partners), including pension funds, foundations, family offices, etc
  - ▶ May invest across all stages, but typically seek "home-run" potential
- Corporate Venture Capital
  - ▶ Corporations who set up their own venture arms (e.g. Google Ventures)
  - ▶ Normally tied to strategic goals (e.g. access new technologies, synergies)

## Some basic terminology: key players 2/2

- Angels

- ▶ Wealthy individuals who invest on their own behalf
- ▶ Make smaller investments and invest in earlier stages than VCs
- ▶ Range from unsophisticated (family, friends) to highly sophisticated (former entrepreneurs or investors with deep expertise)

- Incubators/Accelerators

- ▶ Programs intended to mentor and support startups
- ▶ Typically take equity in exchange for small investment plus participation in program

# Some basic terminology: stages of investment

- Pre-seed

- ▶ Earliest stage of funding. Small investment (e.g. \$10,000 to \$100,000) to support exploration of an idea, prototyping, recruiting key staff, etc

- Seed

- ▶ Larger investment, to support start of operations
- ▶ Firms already have a prototype, business plan, team in place, etc

- First-stage or Series A

- ▶ Usually provided to ongoing businesses, who have a working product, an organization and likely some revenues, though still unprofitable
- ▶ Often meant to establish and support marketing and sales capabilities

# Some basic terminology: stages of investment

- Second, third, etc or Series B, C, etc
  - ▶ Support growth of tested ventures
  - ▶ Usually meant to finance expansion of working capital and fixed assets needed to support growth of a profitable business model
- Bridge financing
  - ▶ Support a successful company as it prepares for next funding round or IPO
  - ▶ Might finance ongoing capital needs or perhaps buy out earlier stage investors who want to liquidate
- Restart financing
  - ▶ Emergency funds for a troubled venture, often at a price well below previous rounds, with the expectation of turning it around



# A framework for evaluating new ventures

## ① The opportunity

- ▶ The market
- ▶ The product
- ▶ The business model

## ② The team

## ③ The context

## ④ The deal → will discuss in second part of course

Source: "Some thoughts on business plans" by William Sahlman  
(available on course website)

# Opportunity: the market

- What is the relevant market? What problem are you solving?
- Is the market for the venture large or rapidly growing?
  - ▶ Large: upside has to be attractive enough to compensate for risk
  - ▶ Growing: easier to compete than in a stagnant market
- How attractive is it?
  - ▶ Competitive landscape
  - ▶ Barriers to entry

# Opportunity: the product

- What is the value proposition?
- How much better is that proposition than the competition? Will customers bother to switch?
- How will competitive advantage be sustained, i.e. what is the moat?
  - ▶ Scale effects?
  - ▶ Network effects?
  - ▶ Switching costs?
  - ▶ Intellectual property?
  - ▶ Branding?

## Opportunity: the business model

- How will the product be priced?
- How much does it cost to produce and deliver?
- How much does it cost to acquire a customer?
- How much does it cost to support and retain a customer?
- When do you have to buy and pay for resources (supplies, people)?
- How long does it take to acquire customers and when do they pay?
- How much capital equipment do you need?
- What are the implications for funding?

# The team

- Who are the founders? What are their motivations?
- What have they accomplished in the past?
- What skills do they have? Who else needs to be on the team?
- Do they know/are they known in the industry? What is their reputation?
- How committed are they to the venture? Have they split equity appropriately?
- How will they react to adversity?
- How well do they work together?

# The context

- What is the macroeconomic context?
- What is the regulatory framework and how is it evolving?
- What does the funding environment look like?

# Which one do you think is more important?

- The market
- The product
- The business model
- The team

# Old debate among venture capitalists

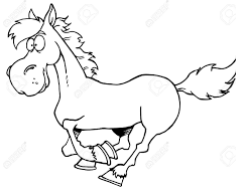
- Bet on the horse (market, product and business model)?



- Or the jockey (the team)?







- Don Valentine (founder of Sequoia Capital):
  - ▶ Find markets with high potential
  - ▶ Have a great technology
  - ▶ Put management in place as needed
- Cisco was turned down by other VCs for having a weak team
  - ▶ Valentine invested 2 million; his investment was worth 6 billion seven years later

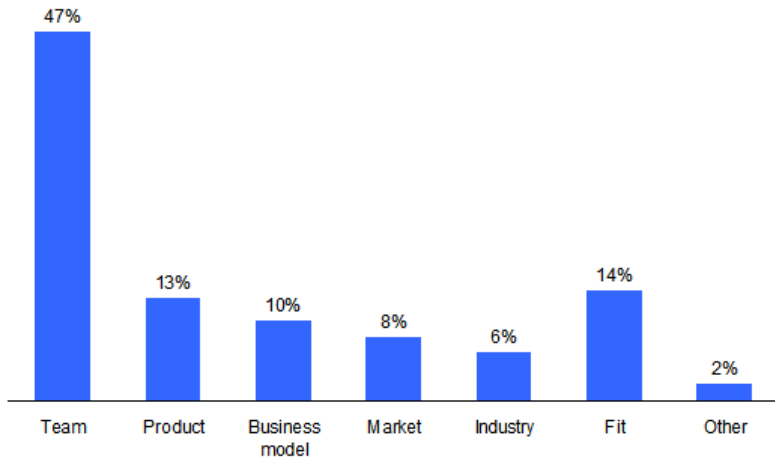


- Arthur Rock (early investor in Fairchild Semiconductor, Apple and Intel):
  - ▶ "I invest in people, not ideas"
  - ▶ "Nearly every mistake I have made has been because I picked the wrong people, not the wrong idea"
  - ▶ "If you can find good people, if they're wrong about the product they'll make a switch"

# What do venture capitalists in general think?

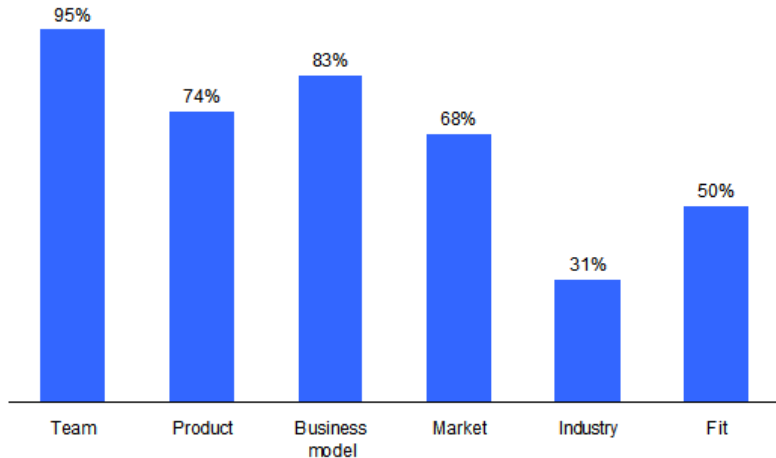
- Gompers et al. 2020. How Do Venture Capitalists Make Decisions? Journal of Financial Economics
- Survey of 885 VCs at 681 firms about how they make decisions
  - ▶ Deal sourcing
  - ▶ Investment decisions
  - ▶ Valuation
  - ▶ Deal structure
  - ▶ Post-investment value-added
  - ▶ Exits
  - ▶ Internal organization of firms
  - ▶ Relationships with limited partners

## Most important factor when deciding to invest



Source: Gompers et al. 2016. How Do Venture Capitalists Make Decisions? National Bureau of Economic Research Working Paper

## Important factors when deciding to invest



Source: Gompers et al. 2020. How Do Venture Capitalists Make Decisions? Journal of Financial Economics

## Next class

- First case discussion: “Athleta”
- Case and assignment questions are available on course website
- Submit your 1-2 page memos on moodle
- Bring case and name tags
- Additional reading: “Some thoughts on business plans” by William Sahlman