2220 - Entrepreneurial Finance and Venture Capital

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Lecture #8

Experimentation and multi-stage finance

- Multi-stage finance can be seen as series of experiments
  - Each stage corresponds to successfully meeting a set of milestones
  - If milestones are met, investors commit the minimum funds needed to run the next set of experiments
- Staging creates option to abandon unsuccessful projects
  - Enables funding of projects with low probability of success
  - Minimizes dilution for founders
- On the other hand, staging creates financing risk
  - Funding environment may worsen
  - Investors in previous rounds may change their minds
  - A startup may fail to raise funds even if it meets milestones

Drivers of the value of experimentation

- The value of experiments depends on
  - The cost of the experiment
  - How much you learn from the experiment

- In industries and projects where experimentation is cheap and informative, valuations are higher and founders experience less dilution

- In some industries (e.g. software), technological progress has led to a large decline in the cost of experimentation
  - This has resulted in increased entry and availability of early stage funding
  - It has also predictably increased failure rates ("series A crunch")

Three tools for valuation

- 3-stage model
  - Link business model, funding needs and valuation in a success scenario
- VC method
  - Account for probability of failure through discount rate
- Decision tree
  - Map VC discount rates into probabilities of failure, reconciling VC method and DCF

Next class

- Lecture on deal structure