

Venture Capital & the Finance of Innovation
Wharton SF MBA Syllabus – September 2012

Professor David Wessels

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This class will focus on the principles related to the organization of venture capital partnerships, risk & return of venture capital, the analysis and valuation of high growth companies, and the capital structure specific to venture backed companies. To avoid overlap with Professor Raffi Amit's class with the same title, I will not be covering certain critical aspects of venture capital, such as management evaluation, due diligence, and portfolio company oversight. For a good overview of current trends in venture capital and the institutional details related to the funding process, please reference Professor Amit's materials.

We start by outlining how venture capital funds are organized, how and from whom they raise capital, and in what type of firms they typically invest. A good portion of this section will examine the risk / return profile of venture capital and whether venture capital "beats the market," whether it lowers risk of the limited partner's portfolio, and how the high uncertainty of growth firms should be priced.

The second section of the course will examine the value drivers for high growth companies. Special attention will be given to the valuation process for small, illiquid, high-growth companies versus mature companies. For instance, how can you bound reasonable estimates of revenue growth, margins, and capital productivity when little historical data is available?

The third section of the course will examine valuation techniques necessary to value complex securities associated with venture capital and high growth companies. Preferred stock held by venture capitalist has conversion features that resemble a combination of debt and equity. Therefore, options models must be employed to determine their true economic (versus fully-diluted) value.

Reading Material

The course will rely on a textbook and a few supplemental readings (which can be found on canvas).

- Venture Capital and the Finance of Innovation (2nd edition) by Andrew Metrick and Ayako Yasuda, 2011, John Wiley & Sons, Inc, NY.

The course will also rely on (a) chapter(s) from a secondary text:

- Valuation: Measuring and Managing the Value of Companies (5th edition) by Koller, Goedhart, and Wessels, 2010, John Wiley & Sons, Inc, NY.

Classroom Expectations

Please bring three items to EVERY class: your name tent, the lecture notes (to be distributed during the first class), and a basic calculator. As the quarter progresses, please remain diligent. I tend to be relentless with those who come to class empty-handed.

Assignments & Final Exam

There will be two assignments and a final exam. For individual assignments, I expect you to work alone and hand in your own work. You can discuss class tools, but not the assignment. For group work, please self-select groups of between 3-5 people, no exceptions. If you have six people, create two groups of three.

	Assignment/Exam	Due Date	Grade
1	Individual Assignment: LP/GP Contracts	9/13	10%
2	Group Project: Private Company Valuation	9/19	20%
3	Final Exam	9/25 at 9:00am	70%

Teaching Assistant

Peter Gajdos is the FNCE 750 TA. Please contact the TA directly if you have questions about the practice problems or sample exam. If you have questions about class discussions or the course notes, please reach out directly to me.

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Class Sessions

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1. Organization Structure & Fund Performance
 - a. (9/6W) Venture Capital: Organization Structure (Note 1, Metrick 1)
 - b. (9/6W) GP/LP Relationship: GP Compensation (Note 2, Metrick 2)
 - c. (9/7W) Risk & Return: The LP's perspective (Note 3, Metrick 4)
 - d. (9/7W) Risk & Return: The founder's perspective (Note 4)

2. Valuing the High Growth Enterprise
 - a. (9/13W) Screening New Venture Opportunities (Note 5)
 - b. (9/13W) Evaluating High-Growth Opportunities (Note 6, Koller 6)
 - c. (9/13W) Valuing High-Growth Companies (Note 7, Koller 7 & 34)

3. Term Sheets and the Valuation of Preferred Shares
 - a. (9/14 W) Term Sheets (Note 8, Metrick 8 & 9)
 - b. (9/14 W) Capital structure of VC-backed companies (Note 9, Metrick 8 & 9)
 - c. (9/19 W) Valuing VC preferred stock as a portfolio of options (Note 10, Metrick 14)
 - d. (9/19 W) Angel investing and convertible debt (Note 11, Metrick 14)

4. Final Exam (9/25W at 9am): 1 hour and 20 minutes

Definitions

E = Wharton East Coast

W = Wharton West Coast

Metrick = Chapter in the Metrick and Yasuda text, "Venture Capital & the Finance of Innovation"

Wessels = Chapter in the Koller, Goedhart, Wessels text "Valuation" (on canvas)