Valuation, Fall 2020

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This course will focus on the financial analysis, strategic assessment, and valuation of companies. The course will link corporate strategy with valuation; a critical skill for those entering consulting, investment banking, private equity, and corporate development. When necessary, the course will take a deep dive into the accounting notes, identifying nuggets of information critical for robust valuation.

The course is segmented into four modules:

- During the **first module** of class, we discuss the drivers of corporate value, specifically return on capital and organic revenue growth. We examine how the world's most valuable companies have created value, and how they protect their competitive position. We use this framework to underpin the most common methods of corporate valuation.

- During the **second module**, we create our first DCF models, including the enterprise DCF model, the economic profit model, a cash-flow-to-equity model, and adjusted present value. When properly implemented, each model will lead to the same result, but highlight different aspects of value creation. This is quite useful when testing financial strategies and error checking.

- During the **third module**, we set the stage for financial forecasting by analyzing historical performance. Since traditional financial statements are not well suited to valuation, we reorganize the them into operating, nonoperating, and financing components. Our primary goal will be to build a clean view of operating performance across business units and for the entire company.

- During the **final module**, we cover the essentials of model building. We discuss the fundamentals of forecasting, how to determine the appropriate forecast period, and issues related to continuing value. I plan to demonstrate a fool proof method for constructing free cash flow in practice, one that hopefully will save you many unnecessary late-night hours! We conclude the section with practitioner pitfalls related to estimating the cost of capital.

If time permits, we close the course with a short discussion on multiples. Multiples are an excellent valuation tool to triangulate a company's value. Multiples may appear straightforward, but as you will

see, their simplicity is deceptive, and the skills developed throughout the course will be critical. By the end of this course, you should feel comfortable creating a sophisticated valuation of a complex company, integrating both strategic and financial assessments into your work!

Reading Material

The course will rely on a textbook and a few supplemental readings (which can be found on canvas). The textbook can be purchased in the campus bookstore or on Amazon.com:

- Valuation: Measuring and Managing the Value of Companies (7th edition) by Koller, Goedhart, and Wessels, 2020, John Wiley & Sons, Inc, NY.

You can use older editions of the book, but please be aware that rules regarding deferred taxes, operating leases, pensions, have changed since the last edition was published in 2015. You are responsible to conduct analysis under the current guidelines! Lecture notes will be available on canvas under files/syllabus and slides.

On-line Requirements

The class will be fully synchronous and heavily interactive. Thus, to make the experience best-in-class, everyone needs to fully engage. You need access to a good internet connection, a camera, and a microphone. Be prepared to present your in-class results, including spreadsheets every class. If you do not feel comfortable in an interactive (but completely constructive, inclusive) environment, please consider whether other courses may be a better fit. The class will be conducted in zoom, and the recurring appointment is available on canvas

Assignments &Grading

There will be three individual assignments (15% total), three group projects (15% total), a midterm (20%), and a final exam (50%). 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, please create two groups of three.

Class participation will not formally be scored, but students at the grading cutoffs will be evaluated for their ability to generate an active and positive class environment. The assignment/exam due dates and grading breakdown will be as follows:

	Assignment/Exam	Due Date	Grade
1	Individual Assignment: ROIC & Growth	9/17/2020	5%
2	Group Project: Economic Profit	9/29/2020	5%
3	Midterm Exam	10/6/2020	20%
4	Individual Assignment: Integrated Model Building	10/20/2020	5%
5	Individual Assignment: Organic Revenue Growth	10/29/2020	5%
6	Group Presentation: Financial Analysis	11/17/2020	5%
7	Group Presentation: Enterprise Valuation	12/8/2020	5%
8	Final Exam	Set by Registrar	50%

If necessary, superseding due dates will be posted to canvas. They will follow the schedule above unless we have not covered the relevant material. The exams are fixed and will not change. Please make the appropriate accommodations as we cannot accommodate alternative testing dates.

Teaching Assistants & Office Hours

We have two teaching assistants for the class. If you have questions concerning assignments or practice exams, please e-mail your primary TA first. If they are out of town, only then reach out to the other TA. If you have a question about class examples OR assignments, please use the TAs as your primary resource. As a general policy, I do not answer questions about the assignments! If you have questions about the course notes or content beyond the class, please come see me during office hours.

Office Hours: We are still finalizing TA selection and will post shortly!

Regrade policy. All regrade requests must be emailed to your primary TA within ten calendar days following the return of your graded work.

Academic Integrity

I expect you to follow Penn's code of academic integrity when completing problem sets, group work, and exams. Allegations of impropriety should be brought directly to me, which in turn will be referred to the University Honor Council. For more, see:

https://catalog.upenn.edu/pennbook/code-of-academic-integrity/

The most common violation is turning in another person's work, which results in a semester-long suspension by the University. This course is meant for you, make sure it reflects your contributions!

I look forward to meeting each and every one of you this semester! Best, Prof. Wessels.

Corporate Valuation

Course Schedule

Section	Date	Note	Topic	Reading
Section 1: Value Creation	9/1/2020	1	C-Suite Thinking: Value Drivers	Granularity of Growth
	9/3/2020	2	C-Suite Thinking: Tactical Growth Levers	Chapter 2
	9/8/2020	3	Key Value Drivers	Chapter 3, excluding 40-42
	9/10/2020	4	Valuation using ROIC & Economic Profit	Chapter 3, pages 40-42
	9/15/2020	5	Value Creation: Total Returns to Shareholders	Chapter 5
Section 2: DCF Valuation Models	9/17/2020	6	Enterprise DCF Valuation in Practice	Chapter 10, pages 177-191
	9/22/2020	7	DCF Models: FCF and CFE Models	Chapter 10, pages 191-194
	9/24/2020	8	DCF Models: APV and CCF Models	Chapter 10, 194-204
	9/29/2020	n/a	Case: QuickDash Review	No Reading
	10/1/2020	9	Summary of Valuation Models	No Reading
	10/6/2020	n/a	Midterm	No Reading
	10/8/2020	10	Choosing the Right Model	No Reading
Section 3: Advanced Financial Analysis	10/13/2020	11	Financial Analysis: Revenue Growth	Chapter 12, pages 247-253
	10/15/2020	12	Financial Analysis: Profitability & Capital	Chapter 12, pages 239-247
	10/20/2020	13	Key Performance Indicators	Chapter 29, pages 554-566
	10/22/2020	14	Time Permitting: Leverage & Capital Structure	Chapter 12, pages 253-258
	10/27/2020	n/a	Guest Speaker: Matt Read (in Evening)	No Reading
	10/29/2020	15	Reorganizing: Invested Capital	Chapter 11, pages 205-221
	11/3/2020	16	Reorganizing: NOPAT & Operating Taxes	Chapter 11, pages 221-227
	11/5/2020	17	Reorganizing: Operating Leases	Chapter 22
Section 4: Model Building	11/10/2020	18	Proforma Forecasting	Chapter 13
	11/12/2020	19	Estimating Free Cash Flow	Chapter 11, pages 227-238
	11/17/2020	20	Continuing Value	Chapter 14
	11/19/2020	21	The Cost of Capital: Theory & Traps	Chapter 15
	11/24/2020	22	From Enterprise to Equity Value	Chapter 16
Time Permitting: Triangulation	11/26/2020	n/a	No Class: Thanksgiving	No Reading
	12/1/2020	23	Multiples: Building a Robust Multiple	Chapter 18
	12/3/2020	24	Multiples: Choosing the Right Multiple	Chapter 18 continued
	12/8/2020	n/a	Case: Valuation Review	No Reading