

Corporate Valuation, Fall 2019

Professor David Wessels

Department of Finance, the Wharton School

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

- During the **first section** 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 and introduce the most common methods of corporate valuation: enterprise DCF, discounted economic profit models, and multiples.
- The **second section** will cover financial analysis using the 10-K. We start with the traditional DuPont Formula and then move to modern metrics such as return on invested capital (ROIC) and economic profit (EP). Our primary goal will be to build a clean understanding of operating performance across business units and for the entire company. We examine similar issues related to revenue growth, such as how to separate accounting effects from true organic growth. We conclude the section by deriving non-financial key performance indicators (such as retail basket size and aircraft turnaround time) and discuss their linkage to financial ratios.
- In **section three**, we build an integrated valuation model using enterprise DCF. The section starts by discussing alternative methods of cash flow estimation and discounting, such as free cash flow at the weighted average cost of capital (WACC), adjusted present value (APV), capital cash flow, and direct-to-equity valuation methodologies. Next we cover 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, one that hopefully will save you many unnecessary late-night hours! We conclude the section with continuing valuation and estimation of the cost of capital.

- In **section four**, we close the course with 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 (6th edition) by Koller, Goedhart, and Wessels, 2015, John Wiley & Sons, Inc, NY.

Lecture notes will be available on canvas under files/syllabus and slides.

In-Class Requirements

Please bring three items to EVERY class: your name tent, the previous lecture's notes, and a basic calculator. As the semester progresses, please remain diligent. I tend to be relentless with those who come to class empty-handed!

Assignments &Grading

There will be two individual assignments (15% total), three group projects (25% total), and two exams (30% each). 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.

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	Group Presentation: Strategic Overview	9/19/2019	5%
2	Individual Assignment: Economic Profit	9/26/2019	5%
3	Exam I	10/3/2019	25%
4	Individual Assignment: Organic Growth	10/22/2019	5%
5	Group Presentation: Financial Analysis	10/29/2019	10%
6	Individual Assignment: Integrated Model Building	11/19/2019	5%
7	Group Presentation: Enterprise Valuation	12/3/2019	10%
8	Exam II	12/5/2019	35%

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.

Last Names (A-M): Danny Romeu <romeu@wharton.upenn.edu>

Last Names (N-Z): Chris Fallone <cfallone@wharton.upenn.edu>

Office Hours: Professor Wessels will hold office hours **starting at 1:30pm on Tuesday** in SHDH 2438. Please send him a note to book a slot if you plan on attending <wessels@wharton.upenn.edu>. The teaching assistants will hold office hours from **3:30pm-5:00pm on Wednesdays** in SHDH 2305.

Regrade policy. All regrade requests must be submitted in TYPE and 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/>

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

Corporate Valuation

Course Schedule

Section	Date	Note	Reading
Section 1: Value Creation	8/27/2019	1	C-Suite Thinking: Value Drivers
	9/3/2019	n/a	C-Suite Thinking: Granularity of Growth
	9/5/2019	2	C-Suite Thinking: Tactical Growth Levers
	9/10/2019	3	Key Value Drivers
	9/12/2019	4	Valuation using ROIC & Economic Profit
	9/17/2019	5	Total Returns to Shareholders
	9/19/2019	6	Valuation using Enterprise DCF
Section 2: Financial Analysis	9/26/2019	7	Financial Analysis: Revenue Growth
	10/1/2019	8	Financial Analysis: Profitability & Capital
	10/3/2019	n/a	EXAM I
	10/8/2019	9	Financial Analysis: Leverage & Capital Structure
	10/15/2019	10	Reorganizing: Invested Capital
	10/17/2019	11	Reorganizing: NOPAT & Operating Taxes
	10/22/2019	12	Key Performance Indicators
Section 3: Building a Robust DCF Model	10/24/2019	13	DCF Models: FCF and CFE Models
	10/29/2019	14	DCF Models: APV and CCF Models
	10/31/2019	15	Choosing the Right Model
	11/5/2019	16	Revenue Forecasts
	11/7/2019	17	Proforma Forecasting
	11/12/2019	18	Estimating Free Cash Flow
	11/14/2019	19	Continuing Value
	11/19/2019	20	The Cost of Capital: Theory & Traps
	11/21/2019	21	From Enterprise to Equity Value
Section 4: Putting it All Together	11/28/2019	22	Using Multiples to Triangulate Value
	12/3/2019	n/a	Final Presentations
	12/5/2019	n/a	EXAM II