

FINA 7A10: Intermediate Corporate Finance – Valuation

Fall 2015, 2nd half-semester (October 19 to December 11)

Prof. Vijay Yerramilli

Class Time/ Venue: Monday 6:00–9:00pm, CEMO 105

Office: 240D Melcher Hall

Office Hours: Friday 4:00–5:00pm, or by appointment

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Course description and objectives

The objective of this course is to provide you an in-depth understanding of *valuation* techniques. We will develop standard valuation tools based on the discounted cash flow (DCF) framework, which is widely used in practice to value firms, assets, and projects. As per the DCF framework, the value of any asset is the sum of present values of all future cash flows from the asset, discounted using an appropriate risk-adjusted discount rate. Although this is simple in theory, the devil is in the detail: what exactly do we mean by cash flows, and how do we obtain them from financial statements? How do we estimate an appropriate discount rate? How is firm value allocated among its various claimants, such as debtholders and shareholders? How do changes in capital structure affect the discount rate and firm value? This course will provide the answers to all these questions. Please see Appendix A for a class schedule.

The course is intended to be a “hands on” applied course on valuation. Accordingly, I will emphasize rigorous and detailed applications of basic valuation principles to solve real-life problems. Needless to say, the course is quantitative in nature, and will involve complex spreadsheet modeling in Excel. However, valuation is not just about crunching numbers in a spreadsheet; a successful financial analyst must also know how to communicate his/her findings. The case studies will help you develop all these crucial skills. In terms of pedagogic goals, by the end of this course, you should be able to:

- Evaluate corporate projects and make decisions based on financial data.
- Value firms using their financial statements and forecasts of future revenues and costs.
- Understand how changes in capital structure (i.e., debt-equity composition) affect the firm’s cost of capital and value.

Who should take this course?

A thorough understanding of valuation is absolutely essential for anyone planning a career in finance, whether at a corporation or at a financial institution. The topics in this course have applications in corporate finance, mergers and acquisitions, equity analysis, banking, and consulting work. Therefore, they are most likely to come up in job interviews. Moreover, FINA 7A10 is a prerequisite for other advanced electives in finance, such as FINA 7A33 (“Mergers & Acquisitions”) and FINA 7A30 (“Advanced Corporate Finance”).

In the case of students planning other specializations, the course topics will help you analyze the value implications of all corporate decisions; e.g., mergers, joint ventures, strategic alliances, market entry, new product launches, product price changes, advertising and R&D expenditures, etc. The Excel analysis tools learnt in this class will have applications beyond finance and valuation.

Prerequisites

FINA 6A35 (“Managerial Finance”) is a necessary prerequisite. More specifically, here is what I expect from you at the beginning of the class:

- *A basic understanding of time value of money concepts and risk and return concepts (e.g., CAPM and β).* If these concepts don’t ring a bell, then I suggest that you brush up on these by referring to your course material from FINA 6A35.
- *Basic accounting knowledge.* Brush up on the following: (a) organization of the balance sheet: assets vs. liabilities, current vs. non-current assets/ liabilities; (b) organization of the income statement: sales, cost of goods sold, EBITDA, EBIT, EBT, Net Income, etc.; (c) accrual method of accounting vs. the cash method. You may want to use the two *Merrill Lynch* brochures available on the course webpage to brush up your accounting knowledge.
- You must also be comfortable with *Microsoft Excel* because the case studies require you to build and analyze complex spreadsheets.

Given the amount of material we cover, most of you will find this to be a challenging course. It is, therefore, important that you stay on top of the material. I will do my best, both in class and during office hours, to help you navigate the material and understand the logical connections between the different valuation methods.

Course Material

I will post all my lecture slides, Excel files, and copies of articles on the course page on Blackboard (<http://www.uh.edu/blackboard>). All important announcements will also be made on Blackboard. So please make sure to check this page regularly.

The cases studies can be downloaded directly from Harvard Business School Publishing (HBSP: <http://hbsp.harvard.edu>) at a reasonable price. I have prepared a case packet, which is available at <https://cb.hbsp.harvard.edu/cbmp/import/ptos/39406232>. Once you log in to HBSP, click on “*My Courses*” and select the course name “*Valuation (Fall 2015)*”. (**Note:** You may have to login with your UH email id for HBSP to recognize you as a UH student.)

There is no required textbook for this class. However, I recommend that all finance students acquire a copy of “*Valuation: Measuring and Managing the Value of Companies,*” *Fifth Edition (Wiley Finance), by McKinsey & Company’s Tim Koller, Marc Goedhart and David Wessels (ISBN: 978-0470424650)*. This is not a standard textbook but it offers a detailed and practical guide to valuation, that should be useful beyond this course. It is definitely a worthwhile investment for students specializing in finance.

Grading

Your final letter grade for this class will depend on your performance on the case studies, the in-class quizzes, and the final exam. The weightages of these components are as follows: **final exam (45%), case studies (40%), and in-class quizzes (15%)**.

There are no fixed cutoffs for determining the letter grades, because I grade on a curve. I also reward active class participation: if you attend class regularly and contribute to in-class discussions, I could increase your base grade by a notch if you are at the margin (i.e., ‘A-’ could become an ‘A’). There is no pre-specified grade distribution for this course. I am prepared to assign a high proportion of ‘A’ grades if performance is excellent, and will not hesitate to assign lower grades if performance is not up to the mark. Below is a detailed description of the individual components in the grading schedule.

Final Exam

A comprehensive final exam will be held from 6:00-9:00pm on **Monday, December 14**. This will be a closed-book and closed-notes exam. However, you are allowed to bring a “cheat-sheet” with notes written on one side of one sheet (8.5”x11”), to help you recall essential formulas and procedures. I will assign homework assignments periodically to pre-

pare you for the exam (moreover, the case studies will also offer you the opportunity to further hone your valuation skills). These assignments do not have to be turned in, and will not be graded.

You should also bring a calculator (and some spare batteries!) because I do not allow use of computers during the exam. Make sure you know how to operate the calculator. The best way to prepare for the final exam is to solve the homework problems with the aid of the cheat-sheet and the calculator.

Case Reports

You will be required to submit written case reports for the following cases:

1. Ocean Carriers
2. Marriott Corporation: The Cost of Capital
3. Sampa Video, Inc.
4. Valuation of AirThread Connections

You will work on case studies in teams (of up to 4 students). Given the importance of teamwork in this class, it is imperative that you form teams by the end of the first week of classes. Once you form a team, you should designate one team member to send me an email containing the names of all team members. *The deadline for sending me this email is 5:00pm on Friday, October 23.* If you are unable to find teammates by this date, please let me know so that I can assist you in forming/ joining a team.

All case reports are equally weighted. The specific questions pertaining to each case will be provided to you well in advance of the due date. Detailed guidelines for preparing case reports are in Appendix B. Case reports must be submitted electronically on BlackBoard. Please designate a team member to submit the case report in PDF format by 5:00pm on the day on which the case is due for discussion in class. Do retain a hard copy of the report with you because you may need it for the in-class discussion. You will receive the team score on your case report within a week of submission. *I do not allow any resubmissions after the case has been discussed in class.*

Your individual score on case reports will depend on your team score and a confidential peer evaluation submitted by your teammates at the end of the course. The integrity of the peer-evaluation is essential to avoid free-riding within teams. *Peer evaluations are mandatory and must be turned in by December 11, Friday.* I will post the peer evaluation form on Blackboard closer to the due date. I reiterate that these evaluations are confidential. I will not share individual evaluations with your teammates under any circumstances.

In-Class Quizzes

I will hold two in-class quizzes to assess your understanding of the topics covered in class, and to provide you timely feedback regarding your individual performance. Each quiz will last 30 minutes and will feature a single numerical problem. It will be a closed-book, closed-notes test, but you will be allowed to use a cheat-sheet (described above) and a calculator.

The *tentative* dates for the quizzes are listed in Appendix A; I reserve the right to change these dates. Please note that these are meant to be in-class quizzes. Hence, there will be *no make-up quizzes* if you miss class, regardless of the reason for your absence. Instead of a make-up, I'll simply transfer the weightage for that quiz to your final exam, so that you are not penalized heavily for the absence. Just as an example, suppose you miss both quizzes (not advisable!), then your final exam will contribute 60% to your overall grade.

Miscellaneous Information

Accessibility Statement

The C. T. Bauer College of Business would like to help students who have disabilities achieve their highest potential. To this end, in order to receive academic accommodations, students must register with the Center for Students with Disabilities (CSD), and present approved accommodation documentation to their instructors in a timely manner.

Academic Misconduct

The University of Houston's Academic Honesty Policy is strictly enforced by the Bauer College and by this professor. A discussion of the policy is included in the UH Student Handbook, <http://www.uh.edu/dos/studenthandbook>. It is your responsibility to fully understand and comply with all principles contained within this Handbook. Please make sure you understand this policy and in particular, you understand the meaning of plagiarism.

Appendix A: (Tentative) Course Schedule

The course schedule is only tentative, and may change depending on the progress that we make.

- Week 1 (October 19):
 - Quick review of time value of money tools
 - Introduction to DCF Valuation and free cash flow (FCF)
- Week 2 (October 26):
 - DCF technique I: WACC Method
- Week 3 (November 2):
 - (**CASE STUDY**) *Ocean Carriers*
 - Weighted average cost of capital (WACC)
- Week 4 (November 9):
 - WACC and capital structure: “de-levering” and “re-levering” methods
 - IN-CLASS QUIZ
- Week 5 (November 16):
 - (**CASE STUDY**) *Marriott Corporation: The Cost of Capital*
 - DCF technique II: Adjusted present value (APV) method
- Week 6 (November 23):
 - (**CASE STUDY**) *Sampa Video, Inc.*
 - Discussion of multiples valuation
- Week 7 (November 30):
 - (**CASE STUDY**) *Valuation of AirThread Connections*
 - IN-CLASS QUIZ

Appendix B: Guidelines for Preparing Case Reports

I will provide you with a list of questions for each case, to help guide and focus your analysis of the case. Your case report **MUST** be structured in the form of answers to these questions. Follow these suggestions when preparing your case reports:

- Read the case thoroughly to identify the main issues and problems. Critically evaluate the information provided to you. As in real life, you will never have all the information you require to make a decision. You will, therefore, have to make reasonable assumptions regarding the missing data/links. Describe these assumptions in the case report, and provide a short justification.
- *Your analysis must be based ONLY on the information provided to you in the case* (plus, a few additional assumptions if necessary). Do not make up your own forecasts/numbers.
- The case report **must contain all the exhibits** (tables, figures, etc.) that are necessary to support your written analysis, so that the reader can understand your analysis without having to go through your Excel spreadsheet. For example, (at a minimum) provide a table presenting your forecasts of future earnings and free cash flow, so that the reader can figure out how you arrived at your value estimate.
- Be brief. Your report should include a write up not exceeding 4 pages in length, plus supporting tables, graphs or figures. Do not waste space rehashing the facts of the case. Use font size of 11 or higher. Make sure that the tables are readable.

Please designate a team member *to submit your report (in PDF format) electronically on Blackboard* by 5:00pm on the day the case is due for discussion in the class. **DO NOT** email the report/ spreadsheet to me. You **DO NOT NEED TO** submit the Excel spreadsheet unless I ask for it.