1 Overview

The modern business environment is evolving ever more rapidly forcing companies constantly to adapt the funding of their operations to market conditions, risk-management needs, and investment opportunities. This course familiarizes students with the different funding techniques available to corporations, with particular attention to credit risk. Given their economic environment, we will discuss appropriate financial strategies that enable companies to raise the funds they need to successfully operate with a particular focus on the pricing and design of securities and risk management.

Taught from a life-cycle of the firm perspective, we will first discuss the funding of young companies through private equity and bank loans (private debt) followed by the raising of public equity by growing firms through IPOs. Next, we cover the external financing of mature companies in domestic and global bond markets and how firms use debt issuance to address financial and operating risks at the same time. Finally, we discuss credit risk and wrap up the course with an exploration of project finance, a financing technique to fund large, stand-alone investment projects which bring together all aspects of the course.

2 Objectives

This course develops financial-valuation and security-design concepts for firms ready to fund their operations. It draws on some material which is covered in more detail in Advanced Corporate Finance (capital-structure design, real options), Derivative Securities (options analysis), and Fixed Income (fixed-income pricing, swaps, credit-risk analysis). Its central theme are security pricing and design, integrated funding and risk management, and financial strategy. Students should expect to become familiar with

1. financial and real options in corporate finance;\(^1\)
2. fixed-income analysis and securitization;
3. interest and foreign-currency swaps;
4. default analysis and credit risk.

\(^1\)It might be a good idea to collect valuation model spreadsheets into a library that might be useful later in your professional life when you have to deal with such calculations on a routine basis.
3 Requirements and Grading

I will assume that you are intimately familiar with the material covered in your basic corporate finance course and textbook (FNCE 100/601). If not, you should start reminding yourselves of the foundations of modern finance. In addition, you should be comfortable with basic statistics (e.g., regression analysis, conditional distributions) as well as basic algebra and calculus. The course consists of a combination of lectures, case discussions, midterms, and homework.

There are two midterm exams (25% each), both of which are mandatory, on March 03 and April 16 so that you should save the dates. If you anticipate being unable to make either one of these dates, you should drop the course at this point. No excuses will be accepted; in particular, I will not accept a note simply stating that the student went to the hospital as an excuse for not taking the exam. The only valid reason for not taking the exam is a true medical emergency in which case you must have a signed note from a medical doctor stating that you are/were physically unable to take the exam. You will be allowed a one-page, letter-sized, hand-written, nonmodified note sheet.

Any requests for regrading of exams must be submitted in writing within one week from the date that exams are returned in class. The one-week period for submission of exams for regrading begins on the date that the exams are returned in class, not on the date that you pick up the exam if for some reason you are absent at that date. If you miss the class during which the exams are returned, it is your responsibility to pick up your graded exam within the one-week period. Requests for regrading must be very specific. Do not mark or make notes on your exam, and do not alter in any way the answers to the questions. When you request a regrade, I will in all likelihood regrade your entire exam to be sure that mistakes were not made elsewhere, either in your favor or against you. As a result, please be aware that your exam score may rise or fall as a result of regrading.

Cases make up 25% of the overall grade and consist of write-ups (up to two pages of analysis and 6 pages of appendices) and class discussion. The write-ups are due at the beginning of the class for which discussion is scheduled and should be prepared in groups of maximally 5 students. You may find it advantageous to form stable groups early on. Students’ full participation in the case preparation will be assessed through peer evaluations which directly affect your individual case.

Five homework assignments (25%) round out the grade composition. Like the midterms they are students’ individual responsibility so that no joint work will be accepted. There is a total of six mandatory homework sets but I will drop the lowest grade. As a result, absolutely no late homework will be accepted for any reason. Your assignments are to be handed in as hard copies (absolutely no email submission accepted) at the beginning of the class for which the assignment is due. Class participation and, especially, case discussion counts at the margin.

Cases: 5 write-ups (5% each) 25%
Midterm: 2 tests 50%
Assignments: 5 out of 6 25%

Enrolment in this class means that you accept the conditions of the university’s Honor Code. All work turned in for this course must be your own or that of your group. Working as part of a group implies that you are an active participant and fully contributed to the output produced by that group. Also, as many of you are aware, some of the material discussed or analyzed in this course may overlap with that covered in other courses, or covered in previous semesters. Be advised that you are not to seek materials from other courses or from previous years in analyzing these cases, and that doing so will be construed as a violation of the school’s code of academic
integrity. Similarly, referencing old answer keys or submitted work from earlier versions of this class in solving homeworks is not permitted.

4 Case Preparation

The case studies are meant to provide examples of companies or individuals that have faced the very topics at hand and to apply theoretical tools to real problems. On the course website, you can find questions and ideas that you may use as guidelines for analyzing the case. Do NOT just answer the questions in a 1, 2, 3, 4 format. Write up the case analysis as an executive memo or other business document. The following ground rules apply:

1. The cases may be done in groups with all group members receiving the same grade for the write-up. For the case write-ups it is not necessary (but, for obvious reasons highly recommended) to work in stable groups. If your name is on the report as part of the group, it means you participated in the analysis. The maximal group size is 5 students. I will not tolerate any shirking or free-riding on team members when it comes to the case studies; your full participation in the case preparation will be assessed through peer evaluations that directly affect your individual case grades.

2. The case write-up is a two-page single-spaced (maximum) report with up to six pages of analytic appendices (exhibits such as graphs and tables). The case write-up should be typed in 12 point type with one inch margins, contain section headings, and have the look and feel of a professional document.

3. The case instructions and discussion questions are designed to highlight the issues. If you believe that these questions do not effectively address the problems in the case, feel free to go outside the parameters of the instructions.

4. It is not necessary to rehash the case situation in your write-up. Do not, however, assume that I know every single number and detail. Use your best judgment on how much of the case to include in your write-up.

5. Most importantly, you must take a position regarding the problem in the case and make specific recommendations on how to solve it. Support your recommendation as succinctly and as effectively as you can.

5 Logistics

Class TR@ 12pm, 1:30pm, and 4:30pm, JMHH 250
Website (URL) webCafé
Midterms March 03 and April 16
Office Hours Tue 3:00PM to 4:30PM, and by appointment
Office SHDH 2333
Phone 215-898-1163
Fax 215-898-6200
E-mail hauswald@wharton.upenn.edu
TAs Ianina Lucca, David Retchkiman, Patrick Sim, Joshua Wool
6 Course Materials

There is no required text for the class. Class notes, selected handouts, and all other relevant documents will be posted on the course website (webCafé) together with the case and homework assignments. There will also be a case pack with the four Harvard cases; the last one is my own will be available on the website free of charge. It is your responsibility to access the academic articles available through the library’s e-journal collection (at no cost to you); these readings are identified by the name and issue of the journal, and the page numbers. Downloading, printing, and reading the material before each lecture is student responsibility.


In addition, I would strongly encourage students to subscribe to the *Financial Times* to keep abreast of current events in corporate finance, financial markets, and business. Finally, you are expected to familiarize yourselves with the Bloomberg financial-information system which we will be very useful in this course. You need to create a user ID on our terminal to access a really nice set of online courses that teaches you a lot more about finance and financial markets than just using the Bloomberg computer terminal.

7 Course Outline

The schedule is preliminary as I might have to travel during the semester; also, securing interesting guest speakers might require rearranging later parts of the course. However, any changes will be announced well ahead of time.

I Introduction and Foundations

01/15 Introduction and Overview

Readings: TBA

01/20 Options Analysis: Binomial Models and Black-Scholes-Merton


01/22 Options in Corporate Finance

II Equity Capital

01/27 Start-up Finance
Readings: TBA

01/29 Case 1: Penelope’s Personal Pocket Phones, HBS 1999 (9-299-004)

02/03 Raising Public Equity: IPOs

02/05 Uses and Abuses

III Fixed Income

02/10 Fixed-Income Analysis
Readings: TBA

02/12 Bank Lending

02/17 US Treasury Securities

02/19 Repos and Securities Lending

02/24 Case 2: Arbitrage in the Government Bond Market
Readings: TBA

02/26 Corporate Bonds
Readings: TBA
IV  Funding and Risk Management

03/03 Midterm 1
In class, closed book and notes exam covering all material up to and including the previous class; one letter-sized page of handwritten, non-modified notes allowed.

03/05 Bond Covenants

03/10 and 03/12 No Class: Spring-Break Recess

03/17 Callable Bonds and Convertibles
Readings: Brennan and Schwartz, The Case for Convertibles.

03/19 Foreign-Currency and Interest-Rate Swaps
Readings: TBA

03/24 Guest Lecture 1: TBA

03/26 Case 3: The Walt Disney Company’s Yen Financing, HBS 1987 (9-287-058)

03/31 Securitization

V  Credit Risk and Default

04/02 Subprime and Credit Crisis

04/07 Bankruptcy and Distressed Debt

04/09 Case 4: TBD

04/14 Modeling Default: From Merton to KMV
04/16 Midterm 2
In class, closed book and notes exam covering all material up to and including the previous class; one letter-sized page of handwritten, non-modified notes allowed.

VI The Practice of Funding Investments: Project Financing

04/21 Project Finance

04/23 Case 5: Ras Laffan Liquified Natural Gas Company, RBHH 1999.

04/28 Guest Lecture: TBA