

Finance 377.2: Financial Risk Management

MCCOMBS SCHOOL OF BUSINESS, UT AUSTIN

Spring 2011

Unique 03110
TTH, 12:30 - 2:00
UTC 4.124

Professor: Andre Guettler
Office: CBA 6.228
Office Hours: MW, 1:30 – 4 pm. Other time by appointment
Email: Andre.Guettler@mcombs.utexas.edu

TA: Giorgio Baracchi
Office Hours: By appointment
Email: Giorgio.Baracchi@mba11.mcombs.utexas.edu

Course Description and Goals

Risk management is a crucial component to a firm's financial well-being. In order to stay viable, firms need to determine which risks they are exposed to, which risks the firm should keep, moderate, or ultimately eliminate. This course provides an introduction to making such choices by providing a basic understanding of how to value and utilize various derivative instruments, including futures and options contracts and swap instruments. Students should note that this is a technical course, and a substantial amount of mathematics and statistics will be used.

The first part of the course will provide a primer on derivative security basics, and will focus on the pricing of financial futures, including stock index, fixed income and foreign currency futures. In the second part of the course, we will examine the pricing of options. We will develop several models, including the Binomial Option Pricing model and the Black-Scholes Option Pricing model. The course will conclude with advanced topics, including financial engineering, corporate hedging applications, value-at-risk, and credit derivatives.

Instructor

Professor Dr. Andre Guettler holds a doctoral degree in Business Administration from the University of Frankfurt (Germany). His research focuses on Banking and Mutual Funds. He has previously taught undergraduate and graduate students at the University of Frankfurt, EBS Business School, and National University of Singapore. He has done consulting projects for the German stock exchange (Deutsche Börse) and rating system validation for several banks.

Classes

The class meetings will be a mixture of lecture and discussion. Readings should be completed prior to the scheduled class and you should come prepared to contribute to classroom discussion. The current markets provide a wealth of "real-world" material which will also likely be discussed for a few minutes each class.

Course Resources

I use a variety of materials (textbooks, academic papers, regulations, etc.) in constructing my notes for this class. Given that this is an advanced undergraduate elective course, I will not be teaching directly from the textbook, although one is required. View the required textbook as a supplementary view of my class

lectures, which, given the complexity of the material covered in this course, should aid in a better understanding of the material. Please note that some of the material presented in the textbook is out-of-date given the financial market/credit market crisis of last year. I will provide up-to-date material in class, but you should be aware some deviations from what is presented in your textbook will occur.

- Textbook (Required): Derivatives Markets, Robert L. McDonald, Pearson Addison Wesley, 2nd Edition, 2006
- Handouts (Required): Any handouts that are given in class are considered important and testable material. This includes lecture notes on Blackboard, which will be made available prior to each class period.
- Two HBS case studies (Required): These case studies will be assigned later in the class.
 - Liability Management at General Motors (9-293-123)
 - Hedging Currency Risks at AIFS (9-205-026)
- Recommended: Wall Street Journal, Financial Times, etc

Prerequisites

FIN 377.2 is an elective course, restricted for students who are currently enrolled in a major program in the College of Business Administration. The prerequisite is credit or enrollment in FIN 367, and Mathematics 408D or 408L. Further, students will benefit from having solid analytical and spreadsheet skills.

Exams and Grading

Grades will be based on the student's performance on three in-class exams and two case assignments. Your overall score in the course will be determined mechanically as the weighted average of the five component scores.

Exam 1:	Tuesday, February 22, 2011	20%
Case 1:	Due Thursday, March 23, 2011, 5 pm	15%
Exam 2:	Tuesday, March 29, 2011	25%
Case 2:	Due Thursday, April 21, 2011, 5 pm	15%
Exam 3:	TBD (Finals Schedule)	25%

Your overall grade will be determined by where your overall score lies in the distribution of all students' overall scores. The cut-offs in the distribution will be such that roughly 35% of students receive "A"s, 40% receive "B"s, and 25% receive grades below a "B." The exact curve cut-offs will depend on the level and shape of the score distribution. Plus/minus grades will be assigned for the final grade.

There is no opportunity in this course to do "extra-credit" work. Your grade will be determined solely by the components listed above. If you are taking the course **pass/fail** you must complete all projects and take all exams in order to pass the course.

All exams are in-class, closed-book. They cover material from lectures, assigned readings and exercises. Exams will strive to test comprehension and not merely memorization skills. Each exam is comprehensive of the material pertaining to that section only (i.e. the last exam is not comprehensive of all material from the entire semester).

You are responsible for showing up at the proper time and location for all the exams! If you develop a schedule conflict with any of tests, contact the instructor as soon as possible, and no

later than 24 hours before the exam, to get pre-approval. If you fail to show up for an exam without instructor's pre-approval, then you must present a doctor's note stating that you were too sick to take the test. If you miss an exam without a valid reason, then you will receive a zero on the missed test.

Groupwork and HBS Cases

Groupwork is a very important component of this course!

Each group should consist of 3-4 people and I strongly urge you to form groups as soon as possible. Once you have formed a group, please send the TA an email with a list of the members' names and email addresses. Also, please choose a group name (be creative, but tasteful, please) so that we can refer to you more easily. Class members who the TA have not heard from by **February 11, 2011**, will be assigned a group.

Each case will come with a set of instructions at the outset of the case. Students will have approximately two weeks to work on each case, which will involve some computations and analysis. The case analysis should represent a cohesive study of the issue at hand and should answer the questions provided by the instructor. Assume that you are submitting a report to your manager, so precision, conciseness, and thorough discussion is necessary. Do not just answer the questions. As cases are assigned, I will provide more detailed directions.

Class Participation and Attendance

Class attendance is not mandatory (i.e. I will not take daily attendance), but it is highly recommended that you make every effort to attend classes. As the majority of exams will come directly from class notes and lectures, it is to your benefit to attend class. If you must miss class, it is up to you to make sure that you get any missed handouts from the instructor and notes from fellow classmates. I do not give out lecture notes for missed classes.

Continuous Feedback

I encourage you to give me feedback about the course material, my teaching style and anything else that would help you learn the course material better. You should come and talk to me in person if you have any concerns and/or suggestions. However, if that makes you uncomfortable, you can send me an anonymous email from a class email account that I have created at www.mail.google.com. **Login: guettler3772ut, Password: "FeedBack3772"** (case sensitive password).

Students with Disabilities

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Division of Diversity and Community Engagement, Services for Students with Disabilities at 471-6259, <http://www.utexas.edu/diversity/ddce/ssd>.

Academic Dishonesty

Academic dishonesty will not be tolerated. Any individual suspected of cheating, including stealing or using stolen examinations, will be disciplined to the maximum extent possible. Review UT Honor Code at <http://registrar.utexas.edu/catalogs/gi09-10/ch01/index.html>

The McCombs School of Business has no tolerance for acts of scholastic dishonesty. The responsibilities of both students and faculty with regard to scholastic dishonesty are described in detail in the Policy Statement on Scholastic Dishonesty for the McCombs School of Business:

By teaching this course, I have agreed to observe all of the faculty responsibilities described in that document. By enrolling in this class, you have agreed to observe all of the student responsibilities described in that document. If the application of that Policy Statement to this class and its assignments is unclear in any way, it is your responsibility to ask me for clarification. Policy on Scholastic Dishonesty: Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course an/or dismissal from the University. Since dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. You should refer to the Student Judicial Services website at <http://deanofstudents.utexas.edu/sjs/> or the General Information Catalog to access the official University policies and procedures on scholastic dishonesty as well as further elaboration on what constitutes scholastic dishonesty.

Religious Holidays

By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

Calculators:

Recommended for this course is a financial calculator capable of calculating present values, solving for yields, and performing other basic time value calculations. Students bear the responsibility for learning to operate their calculators proficiently. Programmable calculators must be cleared before each test; and there is no sharing of calculators during the test. Present Value/future value tables will not be furnished with the examinations. It should be emphasized that the calculator cannot replace an understanding of the problem solving process.

Class Web Sites and Student Privacy:

Password-protected class sites will be available for all accredited courses taught at The University. Syllabi, handouts, assignments and other resources are types of information that may be available within these sites. Site activities could include exchanging e-mail, engaging in class discussions and chats, and exchanging files. In addition, class e-mail rosters will be a component of the sites. Students who do not want their names included in these electronic class rosters must restrict their directory information in the Office of the Registrar, Main Building, Room 1. For information on restricting directory information see:
<http://www.utexas.edu/student/registrar/catalogs/gi02-03/app/appc09.html>.

Other Important Course Policies:

1. The lectures will sometimes cover extra material (e.g., exercises, discussions) not contained in lecture notes. You are responsible for everything covered or assigned in class. If you miss a class, it is entirely your responsibility to determine what you have missed including any administrative announcements I may have made.
2. Should you have to leave class early, please have the courtesy of letting the instructor know before the beginning of the period and leave quietly so as not to disturb the other members of the class.
3. E-mail and the Internet access are not allowed during lectures. The use of laptop computers is permitted solely for the purposes of taking notes and obtaining course

materials. Mobile phones, Blackberries, and other electronic devices have to be switched off during class at all times.

4. Examinations will not be returned. The students can review their exams only during the week directly following the examination. If you feel your posted examination grade is incorrect, you must notify me in writing during this same one-week period. After one week, the examination papers will be stored and the problem will not be researched.

NOTE

I reserve the right to make modification to this syllabus. The modifications (if any) will be announced in class. You are responsible for all announcements made in class.

Course Outline (Tentative and changeable at instructor's discretion)

<u>Topic</u>	<u>Chapter</u>
Introduction, Basic Derivative Instruments	Chapters 1 and 2
Financial Futures and Forwards	Chapter 5
Commodity Futures and Forwards	Chapter 6
Hedging Strategies	Chapters 4, 5, and 6
Interest Rate Forwards and Futures	Chapter 7
Interest Rate Swaps	Chapter 8
Option Basics	Chapters 3 and 4
Option Pricing	Chapter 9
Option Trading Strategies	Chapters 3 and 4
Binomial Option Pricing	Chapters 10 and 11
Black-Scholes Option Pricing	Chapter 12
The Greeks	Chapter 13
Exotics	Chapter 14
Financial Engineering	Chapter 15
Corporate Applications	Chapter 16
Value at Risk	Chapter 25
Credit Risk and Derivatives	Chapter 26