

FINANCE 624
Interest Rate Risk Management
Winter Quarter 2017

Saturdays 1:00-4:00 in Room 725 of the Schreiber Center (16 East Pearson)

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Office Hours: TTh 10:00 am - noon,
(or by appointment)

Course Description

This course introduces students to the major interest rate derivative securities in use in today's financial markets including options, futures, forwards, and swaps. Although a portion of the course will be devoted to the theory and pricing of these various derivatives, we will also emphasize applying derivatives in corporate finance and risk management in today's ever-evolving financial markets and the abuses that have occurred due to misuse. These include the bankruptcy of Orange County, the demise of Barings Bank, the Fall of LTCM, as well as the recent financial crisis, the London Whale, and others. The main focus of the class will be on the management of interest rate risk, though we will also discuss pre-payment risk and commodity risk (for the purpose of examining basis risk).

Course Material

1. Big Bets Gone Bad: Derivatives and Bankruptcy in Orange County
by Philippe Jorion (Academic Press) (OC)

Note: this book was ordered late and is not yet available, however, my suggestion is to order it on Amazon or similar (it's far cheaper that way!)

2. A Packet of Harvard Cases which can be purchased online at the following URL:

<http://cb.hbsp.harvard.edu/cbmp/access/71768813>

3. Additional Readings for those of you needing some remedial material on options can be purchased online at the following URL::

<http://cb.hbsp.harvard.edu/cbmp/access/71815480>

Recommended Reading

1. "The Big Short", by Michael Lewis (W.W. Norton)
2. "Too Big to Fail", by Andrew Ross Sorkin (Viking Press)
3. "When Genius Failed", by Roger Lowenstein (Random House)
4. A regular reading of the financial press including the *Wall Street Journal*, the *Financial Times*, and the *Economist*, among others.

Grades & Course work:

Grading: Your grade will be computed and assigned according to the following formula:

Homework	10%	90+	A
Cases	30%	80-89	B
Final Exam	30%	70-79	C
Participation	10%	60-69	D
Quizzes	20%	Below 60	F

Prerequisites: I will assume a basic knowledge of elementary finance concepts, as well as some background in basic economics and statistics, though I will review where I feel it's appropriate. Note: The course will make use of ideas from the theory of financial options/forwards. I will quickly review what you need to know about options/forwards, but keep in mind that either FINC622 or FIN628 is officially a prerequisite for this course.

Homework: There are 3 homework assignments for the course (due dates are noted on the syllabus). Homework is due by the start of class and should be turned in via "turnitin". **No late homework will be accepted.** Solutions will be posted promptly. I may also occasionally post practice problems that you do not need to turn in. I will simply post solutions to these problem sets in a timely manner.

Participation: You will learn a lot more - and the class will be much more interesting -if you have read the day's material before class, *especially when we are discussing a case.* Hopefully there will be days when the class is more discussion-oriented. For an added incentive, participation will be 10% of your grade. I take participation seriously. **Note: This doesn't mean just showing up!**

Cases: We will go over several cases in this course. For three of the cases, Premier Foods, Orange County, and GM, you will be asked to do a detailed analysis and write up your thoughts and calculations in a paper not exceeding 5 pages. You will also be asked to turn these in via the "turnitin" facility on Sakai. We will periodically discuss other "cases" during the course without a formal assignment.

Group Work: Note that these case assignments will be completed in groups. The groups should consist of 3-4 people. Try to self-select into groups where there are numerous common times that you can meet. You will have the opportunity at the end of the course to grade your fellow group members. Unless I get considerable feedback to the contrary, I will assume that all group members contributed equally to the group work and will give everyone the same grade. If there is a consensus that one or more group members either significantly out-performed or under-performed everyone else, I will adjust their grades accordingly. I will base these decisions on your evaluations of each other, but I reserve the right to make the final decision.

Calculators: The use of financial calculators will not be emphasized at all in this course. I strongly recommend you get yourself a good *scientific* calculator with memories

built in (the TI-30 series works well and can be had for ~\$15). You will be allowed to use financial calculators, but they will not provide you any advantage.

Preparation: I will try not to repeat too much material that you may have seen in other courses. However, due to the diversity of student's preparation, a certain amount of repetition is inevitable.

Approach: I suggest the following approach to the course. You will benefit a great deal by putting in some time into the course each week outside of class (I estimate that 5-10 hours per week should suffice). Don't let yourself get behind or you will have a very hard time catching up. Try to read any assigned reading prior to class, listen attentively during class, and then write up notes to the class while the material is fresh. You should try to take some notes during class, but don't try to write down absolutely everything.

Extra Material: From time to time I will post additional material for your use on Sakai. Usually I will notify you when I post something, but you should make a habit of checking the course Sakai page on a regular basis. Also, you need to realize that your Loyola email (i.e., "@luc.edu") is the only way I can reach you. Thus, you need to check **THAT** email account regularly.

TENTATIVE Syllabus

<u>Date</u>	<u>Topic</u>
11/11	Introduction to Futures/Interest Rate Futures: <i>Handout on interest rate futures</i> ;
11/18	Introduction to Swaps/Pricing of swaps: <i>Handout on swaps</i> ;
11/25	***** No Class: Thanksgiving *****
12/2	Interest Rate Caps, Floors, Collars, and Swaptions: a rejoinder with options, futures, & swaps: <i>Introduction to Interest Rate Options</i> (Homework #1 is due at the start of class)
12/9	Discussion of LTCM & Other derivatives debacles: <i>handouts on LTCM & others</i> <i>Also, Case: Manipulation of LIBOR</i> ***** Quiz 1 *****
12/16	Case: Liability Management at GM (Interest Rate Risk Management) (Write-up for GM Case is due at the start of class)

1/20 Discussion of Orange County including: Repos, Structured Notes, Hedging vs. Speculating, Securitization: *OC: Ch. 4-10,15,16; Handouts on securitization*
(Homework #2 is due at the start of class)

1/27 Cases: Metro de Porto/The London Whale/Value-at-risk
(Write-up on Orange County due at the start of class, as a group)

***** Quiz 2 *****

2/3 Case: JetBlue (Hedging fuel costs, **basis risk**), CPS Financing woes
(Homework #3, mostly based on Jet Blue, is due at the start of class)

2/10 Case: Premier Foods (Caps, Floors, Collars, Swaps), Review for Final
(Write-up for Premier Foods Case is due at the start of class)

2/17 ***** Final Exam *****

Exam covers Orange County, Interest Rate Derivatives, Synthetic Positions, Basis Risk, Cases, LTCM and other debacles