

The Wharton School
University of Pennsylvania

FUNDING INVESTMENTS

FNCE 738/238 Fall 2007

Professor Gary Gorton

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- **Overview:** This course is a topics course. The topics covered concern the design, pricing, and trading of corporate bonds, structured notes, hybrid securities, credit derivatives, and structured products, such as asset-backed securities, collateralized debt obligations. Basic tools such as swaps and options are studied and used to address security design, trading, and pricing questions.
 - **Goal of Course:** The goal of this course is to introduce ways of thinking about the above securities and derivatives from practical and conceptual points of view. This course aims to provide a set of tools, concepts, and ideas that will serve you over the course of a career. We approach the subjects from three points of view: (1) conceptual and technical -- theory; (2) real world documents; (3) cases.
 - **Level of Course:** This is an upper level elective finance course, not an introductory course. The course is not designed for all students; it is aimed at students who want to be finance professionals.
 - **Prerequisites:** A thorough knowledge of FNCE 601, basic statistics (e.g., regression analysis, conditional probability), basic mathematics (e.g., algebra, matrix algebra) and a working knowledge of a spreadsheet package are required.
 - **Course Materials:** This is a paperless course. All materials are posted on the web cafe site (<http://webcafe.wharton.upenn.edu/>). There is no bulk pack. The web site contains lecture notes, homework assignments, course readings, homework answers, old exams, and old exam answers, and relevant links. For each lecture you will find lecture notes on the web café site.
 - **Current Events:** I will discuss current events from time to time. Students are expected to stay up-to-date by reading the Financial Times, or the business section of the New York Times or the Wall Street Journal, every day.
 - **Course Mechanics:** Lecture format with class discussion of cases. Class participation is encouraged and can affect (positively or negatively) your grade at the margin.
 - **Workload:** Intensive. There are 6 cases and 13 homework problems. The readings, cases, and homework require roughly 12-15 hours per week. Homework is **not** graded, but is preparation for exams. Cases are graded. All cases are due at the beginning of class on the date indicated on the course schedule.
 - **Groups:** Cases (and homework problems, if you choose) are to be done in groups of three, four, or five students. There are no exceptions. Once formed, groups **cannot** be changed during the semester.

- **Cases and Homework:** Do all cases and homework on your own (with your group), from scratch. You are not to use other students' attempts as your starting point. Answers to cases are not handed out. Homework problems are not graded, but are preparation for exams. Answers are provided.
- **Cases are available for purchase at:**
<http://harvardbusinessonline.hbsp.harvard.edu/relay.jhtml?name=cp&c=c14639>
Reference ID: c14639
- **Web Cafe:** <http://webcafe.wharton.upenn.edu/> (If you are already enrolled in the class but do not yet have a Wharton computing account, you can apply online at this site: <http://accounts.wharton.upenn.edu>)
- **Rules:** With regard to homework, cases, and exams in this course, you should not consult any material from previous years or from other courses. All cases and (if you wish) homework problems are to be done by your group. Only the old exams supplied on the web cafe should be consulted in preparation for exams in this course.
- **Office Hours:** The course is designed so that you are forced to learn the material on your own. There is no private tutoring. The week before each exam there will be limited office hours for answering specific questions. If you miss a lecture, it is up to you to learn the material – material is not reviewed during office hours.
- **Grades:** Case write-ups count for 33.3% of the total grade; there are two mid-term exams, each one counts 33.3%. There is no final exam.
- **Readings:** You are responsible for **all** the assigned readings. I may deviate from the lecture notes or I may not finish all the material in a lecture note. But, you are still responsible for that material.

Course Topics, Readings, and Schedule

1. Sept. 6, Thursday: Lecture 1: Introduction

Do Homework #1 about here.

2. Sept. 11, Tuesday: Lecture 2: Bond Math (Review of Some Fixed Income Topics)

Do Homework #2 about here.

Sept. 13, Thursday: NO CLASS.

3. Sept. 18, Tuesday: Lecture 3: Introduction to Swaps

Do Homework #3 about here.

4. Sept. 20, Thursday: Case #1: Arbitrage in Government Bond Markets

Case write-up due at the beginning of class.

5. Sept. 25, Tuesday: Lecture 4: Introduction to Options

Garbade, “Options and Related Securities”

Garbade, “Equilibrium Call Option Prices”

Do Homework #4 about here.

6. Sept. 27, Thursday: Lecture 5: Option Pricing and Corporate Securities

Garbade, “Equilibrium Price of Risky Debt”

Do Homework #5 about here.

7. Oct. 2, Tuesday: Case #2: Coca Cola Harmless Warrants

Case write-up due at the beginning of class.

8. Oct. 4, Thursday: Lecture 6: Covenants

Fitch, “Loan Preserver: The Value of Covenants”

S&P, “The Covenant-Lite Juggernaut Is Raising CLO Risks”

Fitch, “U.S. Leveraged Loan Covenant Decline Accelerating in 2007”

Moody’s, “Bank Loan Recoveries and the Role that Covenants Play”

Laber, “Bond Covenants and Foregone Opportunities: The Case of Burlington Northern Railroad Company”

Do Homework #6 about here.

9. Oct. 9, Tuesday: Lecture 7: Bond Games (Exchange Offers and Consent Solicitations)

Fridson, “Coercive Exchange Offers”

Moody’s, “Sovereign Debt: What Happens if a Sovereign Defaults?”

Moody’s, “How to Sue a Sovereign: The Case of Peru”

Moody’s, “Sovereign Restructurings: Putting Too Much Faith in Exit Consents”

Choi and Gulati, “Why Lawyers Need to Take a Closer Look at Exit Consents”

Do Homework #7 and #8 about here.

10. Oct. 11, Thursday: Midterm Exam In Class

11. Oct. 16, Tuesday: Fall Break – No Class.

12. Oct. 18, Thursday: Case #3: Marriott Corporation-Restructuring

Case write-up due at the beginning of class.

WSJ, “Marriott Plan Enrages Holders of Its Bonds”

Moody’s, “The Successor Obligor Clause in the Tyco Litigation”

13. Oct. 23, Tuesday: Lecture 8: Callable Bonds/Swaptions

14. Oct. 25, Thursday: Lecture 9: Convertible Bonds

Brennan and Schwartz, “The Case for Convertibles”

Do Homework #9 about here.

15. Oct. 30, Tuesday: Lecture 10: Bond Ratings and Credit Spreads

Cantor and Packer, “The Credit Rating Industry”

Micu, Remolona and Wooldridge, “The Price Impact of Rating Announcements”

16. Nov. 1, Thursday: Lecture 11: Pricing Default Risk

Do Homework #10 about here.

17. Nov. 6, Tuesday: Lecture 12: Credit Derivatives

Rule, “The Credit Derivatives Market”

Fitch, “Global Credit Derivatives Survey”

18. Nov. 8, Thursday: Case #4: First American Bank: Credit Default Swaps

Case write-up due at the beginning of class.

19. Nov. 13, Tuesday: Lecture 13: Correlation of Defaults

Do Homework #11 about here.

20. Nov. 15, Thursday: Case #5: The Enron Odyssey: The Special Purpose of “SPEs”

Case write-up due at the beginning of class.

Special Investigative Committee of the Board of Directors of Enron, “Background”

21. Nov. 20: Tuesday: Lecture 14: Securitization 1 – Pooling Cash Flows

Gyntelberg and Remolona, “Securitization in Asia and the Pacific”
 Fender and Mitchell, “Structured Finance: Complexity, Risk and the Use of Ratings”
 FDIC, “Credit Enhancement Facilities”
 Fitch, “Excess Spread: Friend or Foe?”

Nov. 22, Thursday: No Class -Thanksgiving

22. Nov. 27, Tuesday: Lecture 15: Securitization 2 -- Tranching

Do Homework #12 and #13 about here.

23. Nov. 29, Thursday: Midterm Exam #2 – in class.

24. Dec. 4, Tuesday: Lecture 16: Other Structured Products

Fitch, Hybrid Securities

25. Dec. 6, Thursday: Case # 6 An Investment Linked to Commodity Futures

Case write-up due at the beginning of class.

