46-954 Credit Derivatives  
Fall, 2004

General Information

Time of Lectures: Tuesday 8:50am - 10:20am and Thursday 8:50am - 10:20am  
Tuesday 5:45pm - 8:45pm
Place: Cooper Tepper
Required Text: P. Schönbucher, Credit Derivatives Pricing Models: Models,  
Pricing and Implementation, Wiley, Chichester, UK.
Instructor: Kasper Larsen
Office: WEH, Room 6102
E-Mail: kasperl@andrew.cmu.edu
Office Hours: After appointment
Information: All information (including homeworks, solutions and grades)  
can be found at http://www.cmu.edu/blackboard.

Teaching Assistant

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Recitations

Recitations are scheduled in a way to help you answer questions about  
class and homework. You should plan to attend all recitations and partici-  
pate actively. Active participation will help foster understanding. The first  
recitation will be Sunday the 7th of November.

Prerequisites

This course assumes that students are familiar with the material in courses  
Stochastic Calculus for Finance I and II. Especially the theory about Jump  
Processes will be used in this course.
Course Description

This course provides techniques for modeling credit risk. In the literature there exist two basic frameworks for doing this. The first framework is known as the structural approach and here the key object is the value of the firm’s assets. The fundamental idea is that if this value falls below some threshold the firm defaults. The second framework is known as the intensity based or reduced form approach. This approach models the default time as the first jump time for a counting process and allows this jump time to be influenced by certain background variables.

Relative more time will be spent on the latter approach since this framework allows us to use many results from the default-free term-structure theory. Indeed, one main result is that the intensity can be seen as a default premium.

Course Schedule

The schedule contains information about when and from where the different lectures will take place. It also contains due dates for the homework assignments. Check the Blackboard for the latest edition.

Course Content

The content sheet contains information about reading assignments and content of the lectures. It will be updated frequently. Check the Blackboard for the latest edition.

Evaluation

All homeworks will be weighted equally and graded on a 100 point scale. The average will constitute the course grade.

Policies

Class attendance is expected. Two Tuesday classes will be taught from New York, see the schedule for the precise dates.

All grades will be available online through the Blackboard system. If you believe that a score has been recorded incorrectly, you have one week from the time the assignment is returned to contact me about the problem.
Homework

Homeworks are due on the date indicated on the course schedule. These may be submitted at the site where you receive instruction or faxed or e-mailed to the teaching assistant (see the above information). The homework assignments will be posted at least two weeks in advance and the solutions will be posted on the Blackboard three days after the homework assignment is due. You may hand in your homework up to three days late, that is no later than the solutions are posted. However, for every extra day the homework is late the maximal possible credit will decrease with 15%. So if you hand in your homework 2 days late your maximal possible credits will be 70 points.

Academic honesty standards will be enforced. You are encouraged to discuss the assignments with other students. However, all the work submitted for grading must be written up individually, you should not copy from anyone else or allow anyone to copy from your work. In particular, you should not turn in a solution unless you understand it well enough to produce it without reference to notes. You should mention the names of your collaborators on the front of your paper, or next to the problem(s) you discussed with them.