

NEW YORK UNIVERSITY STERN SCHOOL OF BUSINESS

Debt Instruments and Markets (GB.3333.20)

Spring 2012, TR 9:00-10:20am

Instructor: Bruce Tuckman

Office: KMC 9-92

Office Hours: Tuesdays 3-6pm or by appointment

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Course Description

This course will cover a broad range of fixed income markets in the United States, the Eurozone, and Japan: who trades what and why, how relative security prices are determined, and how to quantify and hedge their risks. The material is designed to balance institutional knowledge, theory, and application.

While every effort has been made to limit the mathematical complexity of the course, students should be aware that fixed income is inherently a quantitatively demanding subject.

Required Text

Bruce Tuckman and Angel Serrat, *Fixed Income Securities: Tool's for Today's Markets*, Third Edition, John Wiley & Sons, 2012.

Lecture slides, problems with answers, and sample exam questions with answers will be available at the start of the course.

Exams and Grading

There will be two midterm exams and one final exam. Each exam will be multiple choice and closed book, although a calculator is expected. Each exam will focus on a particular set of lectures, but knowledge of material presented earlier may certainly be required.

The course grade will be the average of the three exam grades.

Course Outline

(Chapter numbers refer to Tuckman and Serrat.)

Overview of Global Fixed Income Markets (Overview Chapter)

Prices, Discount Factors, and Arbitrage (Chapter 1)

Spot, Forward, and Par Rates (Chapter 2)

Returns, Spreads, and Yields (Chapter 3)

One-Factor Risk Metrics and Hedges (Chapter 4)

Midterm I: Tuesday 5 March

Multi-Factor Risk Metrics and Hedges (Chapter 5)

Empirical Approaches to Risk Metrics and Hedging (Chapter 6)

The Science of Term Structure Models (Chapter 7)

The Evolution of Short Rates and the Shape of the Term Structure (Chap. 8)

Repurchase Agreements and Financing (Chapter 12)

Additional reading: "The Deal of the Century," by Tom Junod, Esquire, September 11, 2009.

<http://www.esquire.com/features/barclays-deal-of-the-century-1009>

Midterm II: Thursday 11 April

Forwards and Futures: Preliminaries (Chapter 13, pp. 351-363, 371)

Note and Bond Futures (Chapter 14, pp. 373-390)

Short-Term Rates and Derivatives (Chapter 15, pp. 401-411, 417-432)

Swaps (Chapter 16, pp. 435-450)

Corporate Bonds and Credit Default Swaps (Chapter 19)

Mortgages and Mortgage-Backed Securities (Chapter 20)

Final: TBD, during finals week (15-21 May)