National Chengchi University
Options And Futures Markets (期貨與選擇權市場)

Dept. Of RMI
2015 Spring Semester

Syllabus

Instructor

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Course Outline

This course covers forwards, futures, swaps, and options. By the end of the course, students will have good knowledge of how these products work, how they are used, how they are priced, and how financial institutions hedge their risks when they trade the products. The students should have solid background in calculus, probability theory and linear algebra.

Textbook:

Hull, John C. Options, Futures, and Other Derivatives, 9th Edition,

Tentative topics:

Week 1:	Introduction and mechanics of futures Markets; Chapters 1 and 2
Week 2:	Hedging strategies using futures; Chapter 3
Week 3:	Interest rates; Chapter 4
Week 4:	Determination of forward and futures prices; Chapter 5
Week 5:	Interest rate futures; Chapter 6
Week 6:	Swaps; Chapter 7
Week 7:	Securitization and the Credit Crisis and OIS Discounting, Chapter 9
Week 8:	Mechanics of option markets and properties of options; Chapters 10 and 11
Week 9:	Trading strategies involving options and binomial trees; Chapters 12 and 13
Week 10:	The Black-Scholes-Merton model; Chapter 15 (excl. 15.6)
Week 11:	Employee stock options; Chapter 16
Week 12:	Options on stock indices, currencies and futures; Chapters 17 and 18
Week 13:	The Greeks; Chapter 19
Week 14:	Volatility smiles; Chapter 20
Week 15:	Review of course; Chapter 36

Assessment

Assignments	30%
Midterm	30%
Final Exam	40%

Assignments

There are three hand-in assignments during the semester:

Assignment 1: 1.35, 1.36, 2.31, 2.33, 3.31, 3.32, 4.34, 4.35

Assignment 2: 5.31, 5.33, 6.31, 7.23, 7.24, 8.16, 9.12, 10.28, 11.25

Assignment 3: 12.24, 13.25, 15.28, 15.30, 16.16, 17.28, 17.30, 18.25, 19.24, 19.25, 19.27