

Wilfrid Laurier University

BUSINESS, BU423
Options, Futures and Swaps
Fall 2008

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Course Description:

Options, futures and other derivatives have become increasingly important in the world of finance and investments. The objective of this course is to examine why these securities exist, where and how they are traded, how to use them in risk management, and discuss the models used in pricing them. **Prerequisites: BU393**

Textbook: Fundamentals of Futures and Options Markets, John C. Hull, 5th or 6th Ed., Prentice Hall

Grading Scheme:

Two Group Assignments	20%
Group Presentation:	10%
Participation:	10%
Midterm Exam:	25%
Final Exam:	35%
TOTAL	100%

- Two assignments to be completed in groups of 3-5 students will be assigned and collected.
- Group presentations (3-5 students) will be based on cases of derivative mishaps; you are free to choose your own case or a case from the textbook (Ch 23) on a first-come, first-serve basis.
- Two integral elements of participation are attendance and contribution to in-class discussions.
- No make-up exams will be given for students missing the midterm. Students unable to write the midterm must provide the instructor with documented evidence of illness, family emergency or other sufficient reason. If such evidence is provided, students will have the midterm portion of the grading scheme added to the final exam. If such evidence is not provided, a grade of zero will be assigned for the midterm.
- The final exam is cumulative with the exam date to be determined.

Academic Misconduct and Sanctions:

Academic misconduct is an act by a student, or by students working on a team project, which may result in a false evaluation of the student(s), or which represents a deliberate attempt to unfairly gain an academic advantage. Academic misconduct includes, but is not limited to, the following acts which are presented as examples or a guide since not every possible circumstance can be anticipated:

1. plagiarism, which is the unacknowledged presentation, in whole or in part, of the work of others as one's own, whether in written, oral or other form, in a examination, report or assignment;
2. cheating, which involves using, giving, receiving, or the attempt to use, give or receive unauthorized information during an examination in oral, written or other form; or copying an essay, examination or report, or allowing someone else to copy one's essay, examination or report;
3. submitting the same piece of work, or significant part thereof, for more than one course without the permission of the instructors involved in each course;
4. impersonating another person in an examination or test;
5. buying or otherwise obtaining term papers or assignments for submission of another person's work as one's own for evaluation;
6. falsifying, misrepresenting or forging an academic record or supporting document.

Sanctions are levied by the University and their severity is determined in relation to the degree of academic or research dishonestly committed or attempted, to the intention to commit dishonest acts, or to the degree to which an individual has been a party to attempted or committed acts of dishonesty. Penalties may include, but are not limited to, the following: a requirement to repeat the assignment, examination or course; failure on the assignment, examination or course; suspension from the program or from the University for a designated period of time; expulsion from the program or from the University.

"Students with disabilities or special needs are advised to contact Laurier's Accessible Learning Centre for information regarding its services and resources. Students are encouraged to review the Calendar for information regarding all services available on campus."

Week	Date	Chapter(s)	Topic
1	10-Sep	Chapter 1	Introduction
2	17-Sep	Chapter 7	Swaps
3	24-Sep	Chapter 4 (Sec. 4.2 only) Chapter 8	Interest Rates Mechanics of Options Markets
4	1-Oct	Chapter 9 Chapter 10	Properties of Stock Options Trading Strategies Involving Options
5	8-Oct	Chapter 11	Introduction to Binomial Trees
6	15-Oct	Chapter 12 Appendix	The Black-Scholes Model
7	22-Oct	Chapter 2 Chapter 3 Assignment 1 due at the beginning of class	Mechanics of Futures Markets Hedging Strategies using Futures
8	29-Oct	Midterm Exam	
9	5-Nov	Chapter 4 Chapter 5	Interest Rates Pricing Futures and Forwards
10	12-Nov	Chapter 6 (exclude Sec. 6.4-6.5) Chapter 10	Interest Rate Futures Interest Rate Options
11	19-Nov	Chapter 13 Case presentations	Options on Stock Indices and Currencies
12	26-Nov	Chapter 15 Review Assignment 2 due at the beginning of class	The Greek Letters

Fundamentals of Futures and Options Markets, Sixth Edition

The following typos and other errors are in the first printing of the book. We have tried to correct them in subsequent printings and so they may not be present in the copy you have.

Book Errata

Page 460: Problem 20.25: line 4: change “receives” to “gains” and line 10 change “M = 20 euros” to “M =70 euros”

Fundamentals of Futures and Options Markets, Fifth Edition

The following typos and other errors are in the first printing of the book and Solutions Manual/Study Guide. We have tried to correct them in subsequent printings and so they may not be present in the copy you have.

Book Errata

Page 6: 7 lines from bottom of text: Replace one July call by one October call (This was kindly pointed out by Brian Tims)

Page 7: On first line of the title to Figure 1.3 delete “per share” (This was kindly pointed out by Justin Schmidt)

Page 17: last line: change long to short in Problem 1.14. (This is for consistency with the Solutions Manual)

Page 18: Assignment Question 1.27, line 2: change 200 to 20

Page 34: line 7 of second paragraph: Change February 4, 2004 to February 3, 2004. (This was kindly pointed out by Emilio Barone.)

Page 39: In fourth line of paragraph beginning This example is shown.... 150 cents should be 250 cents. (This was kindly pointed out by Ann Marie Hibbert)

Page 52: line 3 of text: Replace Table 3.1 by Trading Note 3.1 (This was kindly pointed out by Rob Bliss)

Page 56: Trading Note 3.3: last line: June should be July (This was kindly pointed out by Malik Hafiz)

Page 66: Table 3.4 Change Gain on futures position (\$000) to Gain on futures position. (This was kindly pointed out by Emilio Barone.)

Page 67: line 1: equation (3.2) should be equation (3.4)

Page 75 line 7: Delete: and explain day count conventions. Day count conventions are covered in Chapter 6, not Chapter 4)

Page 88, in equation on line 3 replace 4.0 by 0.04, 4.5 by 0.045, and -\$125,000 by -\$1,250. Also on next few lines 125,000 should be replaced by 1,250 in two places and 123,609 should be replaced by 1,236.09 in two places. (This was kindly pointed out by Srinivasan Krishnamurthy.)

Page 88: Change sentence after equation (4.9) to: Similarly, the value of an FRA promising that R_K will be paid on a principal of L between times T_1 and T_2 is (This was kindly pointed out by John Elder.)

Page 92: Problem 4.13: Change (months) to (years) (This was kindly pointed out by Emilio Barone.)

Page 103: Delete first on lines 9 and 11. On line 13 change end of the year to end of nine months. (This was kindly pointed out by Emilio Barone.)

Page 104: Table 5.3: line 3: \$39.40 should be \$39.60 (This was kindly pointed out by Malik Hafiz)

Page 105: Fifth line of example: Replace equation (5.3) by equation (4.3) (This was kindly pointed out by Gregory Battler)

Page 117: Half way down: Change July 17, 2003 to February 4, 2004. 7 lines from the bottom change an requires to and requires. (This was kindly pointed out by Emilio Barone.)

Page 120: Change (2.1) to (5.20) on lines 3 and 8

Page 162: line 21: LIBOR + 0.7% should be LIBOR + 0.07%. Also in the fourth line of Section 7.5 "Section 7.3" should be "Table 7.3" (This was kindly pointed out by Igor Pouchkarev)

Page 165: line 12: Change is worth par... to is worth the par value, L , ... (This was kindly pointed out by Emilio Barone.)

Page 167: Under table on lines 2, 3, and 11 change 10 to 100. On line 16 change -1.4067 to -1.407. (This was kindly pointed out by Emilio Barone.)

Page 173: lines 12 and 14: 9.5439 should be 9.6439 (This was kindly pointed out by Robert Stark)

Page 174: line 8. Change 0.6 to 0.8

Page 196: In Example line 3 change the strike price from \$60 to \$66. (This was kindly pointed out by Emilio Barone.)

Page 202: Quiz 8.3: Change: and writes.... To: and buys...(This was kindly pointed out by Emilio Barone.)

Page 208: line 3: should read: ..effect is to increase the value of call options and decrease the value of put options.. (This was kindly pointed out by Allen Yang)

Page 221: Stoll reference should be *Journal of Finance*, 24 (Dec 1969), 801-24. (This was kindly pointed out by David Langevin)

Page 230: Table 10.2: Last line under Payoff from short put option should be $S_T - K_1$ (This was kindly pointed out by Robert Stark)

Page 231: Table 10.1: Insert European after month in title. Also call option prices when strike is 55 should be 0.96 not 0.76 in table. (This was kindly pointed out by Daniel Pinheiro)

Page 232: Business Snapshot 10.1. End of Second Paragraph:change $e^{0.08 \times 2/12}$ to $e^{-0.08 \times 2/12}$ (This was kindly pointed out by Emilio Barone)

Page 239: 14 lines from bottom, put (call) should be call (put). (This was kindly pointed out by Young-jin An.)

Page 251: 3 lines from bottom, equation (11.8) should be equation (11.10)

Page 256: 6 lines from bottom: equations (11.9) to (11.12) should be equations (11.11) to (11.14)

Page 262: Problem 11.19: line 4 two months should be four months

Page 263: Business Snapshot 12.1: change 1.0124 to 1.124 on line 14. (This was kindly pointed out by Robert Stark)

Page 272: 6 lines from bottom: change \$40 to \$4. (This was kindly pointed out by Robert Stark)

Page 293: In Portfolio insurance section change $S=1000$ to $S_0=1000$. (This was kindly pointed out by Emilio Barone.)

Page 309: line 3: Change American futures to American futures options. (This was kindly pointed out by Emilio Barone.)

Page 344: In further reading change Taleeb to Taleb. (This was kindly pointed out by Emilio Barone.)

Page 351: line 8: Change ... (11.9) to (11.12)... to ... (11.11) to (11.14)... (This was kindly pointed out by Emilio Barone.)

Page 361: line 189 should read: Suppose that S_0^* is the value of S^* (This was kindly pointed out by Emilio Barone.)

Page 388 and 389: In the tables change Market variable N to Market variable n (This was kindly pointed out by Emilio Barone.)

Page 442: Business Snapshot 20.3: Change 200 to 2009 in Equity payment dates (This was kindly pointed out by Emilio Barone.)

Page 443: 3 lines from bottom: Change swap to swap option. (This was kindly pointed out by Emilio Barone.)

Page 447: Problem 20.11. Change t to T in four places. (This was kindly pointed out by Emilio Barone.)

Page 454: line 13: Change to From Tables 21.3 and 21.5... Line 15: change to From Table 21.4, (This was kindly pointed out by Emilio Barone.)

Page 491: Last line: Change LIBOR rate for that maturity to LIBOR par yield for that maturity (This was kindly pointed out by Emilio Barone.)

Page 527: 6 lines from bottom: Change Normal American to Lognormal European. (This was kindly pointed out by Emilio Barone.)

Solutions Manual/Study Guide Errata

Page 19, Problem 4.1: Discounting should be at the three-year rate of 3.7%. The correct answer is \$2,074.85 (This was kindly pointed out by Srinu Krishnamurthy.)

Page 21, Problem 5.13: Change six months to three months on the last line (This was kindly pointed out by Daniel Pinheiro)

Page 50, Problem 9.11, line 5: change $65-5=\$60$ to $64-5=\$59$. On the next line 59.21 should be 58.21 (This was kindly pointed out by Robert Stark)

Page 85, Problem 14.18, second equation should be $30e^{-0.05 \times 3/12} - 28 = 1.63$. On the next line -1.63 should be 1.63 and the final range should be $1.65 < P < 2.37$ (This was kindly pointed out by Asher Lai.)