

EC372 Economics of Bond and Derivatives Markets

Course Outline and Reading List

Details of assessment and submission deadlines are contained in the *Undergraduate Economics Handbook*, available from room 5B.211 in the Department of Economics. It is very important for you to collect your copy. Further Information about the module is available via University's module directory, see: <http://www2.essex.ac.uk/courses/>.

Textbook

Bailey, R. E. *The Economics of Financial Markets*, Cambridge University Press, 2005 (This book was first written as set of lecture notes for EC371 and EC372, combined. Separate notes will be provided for topics 9 and 10 on corporate finance, not covered in the textbook.)

Other readings

Various other readings are recommended, though not essential, for each topic in the course. From among the many textbooks on finance, you may wish to read recommended sections from:

Hull, J. *Fundamentals of Futures and Options Markets*, Prentice-Hall, 7th edition, 2011.)

Elton, E. J., M. J. Gruber, S. J. Brown & W. Goetzmann: *Modern Portfolio Theory and Investment Analysis*, Wiley, 8th edition 2010. Cited as 'Elton and Gruber' in the readings below.)

Module resources: other course materials (e.g. exercises) will be made available in the *Course Materials Repository*.

Classes: All students should attend the weekly class, designed to review the previous week's lectures in the context of exercises.

Formative assessment: Multiple choice test in week beginning 27th February 2012. The purpose is to provide feedback about your understanding of course material up to that point.

Recommended study strategy:

1. **Most important:** study the assigned chapters in *Economics of Financial Markets* very carefully. Your level of understanding of the assigned chapters will determine your mark in the final examination: if you understand the assigned readings you should obtain a first class mark – the better your understanding, the higher will be your mark.
2. **Attempt the exercises** provided online for each topic. Answer guidelines are provided for all exercises but you are strongly advised to avoid consulting the answers until you have attempted the exercises. Do not simply memorise the answers to questions, because you will never see exactly the same question again – learn *how* to answer the questions.
3. Check your understanding of basic concepts by attempting the multiple choice test.
4. **Write a term paper:** consult the suggested readings and pursue references they contain. In preparing a term paper you definitely should go beyond the assigned reading. It is very important for you to make a start on the term paper as soon as possible after the start of term. Submission of a term paper is crucial – only students who fail to do so are likely to fail the module.
5. Apart from the research needed for term papers, it is not essential to read anything other than the assigned chapters of *Economics of Financial Markets*. You are welcome to explore other readings (listed for each topic). Use these to improve your understanding of the material covered in the assigned chapters.

Topics and Readings:

Lecture notes will be made available online in the Course Materials Repository.

* = **essential reading**

Required and recommended readings are subject to amendment during the term.

University Week 16 (beginning 16 January 2012) Bond Markets and Fixed Interest Securities

Topics: bond indentures; valuation of bonds; risks of bond portfolios and their control; nominal and real bonds; yield curves and the term structure of interest rates.

Required reading:

Economics of Financial Markets, chapters 12, 13

Suggestions for further reading:

Hull, J. *Fundamentals of Futures and Options Markets*, chapter 4.

Elton and Gruber, chapter 21 (pp. 498 – 528)

Acharya, V.V. and M. Richardson: *Restoring Financial Stability: How to Repair a Failed System*, Wiley, 2009, chapters 1, 3

University week 17 (beginning 23 January 2012) Futures Markets: I Fundamentals

Topics: Forward contracts and futures contracts; role and operation of futures markets; arbitrage between forward and spot prices; covered interest arbitrage in foreign exchange; REPO contracts.

Required reading:

Economics of Financial Markets, chapter 14

Suggestions for further reading:

Hull, J. *Fundamentals of Futures and Options Markets*, chapters 1, 2.

Acharya, V.V. and M. Richardson: *Restoring Financial Stability: How to Repair a Failed System*, Wiley, 2009, chapter 9

University week 18 (beginning 30 January 2012) Futures Markets: II Speculation and Hedging

Topics: speculation in futures markets; hedging; optimal hedging and speculation; futures prices and spot prices; normal backwardation and its critics; manipulation of futures prices.

Required reading:

Economics of Financial Markets, chapter 15

Suggestions for further reading:

Hull, J. *Fundamentals of Futures and Options Markets*, chapter 3, 5

University week 19 (beginning 06 February 2012) Futures Markets: III Applications

Topics: futures contracts with intangible underlying assets; financial futures; short-term and long-term interest rate futures; hedging strategies using futures contracts.

Required reading:

Economics of Financial Markets, chapter 16

Suggestions for further reading:

Hull, J. *Fundamentals of Futures and Options Markets*, chapters 6, 24

Elton and Gruber, chapter 24 (pp. 609 – 624)

University week 20 (beginning 13 February 2012) Options Markets: I Fundamentals

Topics: Defining properties of call and put options, American and European style; trading in options contracts; option-like securities (warrants, callable bonds, rights issues, etc); upper and lower bounds on option premiums; the put-call parity relationship for European style options.

Required reading:

Economics of Financial Markets, chapter 17

Suggestions for further reading:

Hull, J. *Fundamentals of Futures and Options Markets*, chapters 9, 10

Elton and Gruber, chapter 23 (pp. 571 – 82)

University week 21 (beginning 20 February 2012) Options Markets: II Price Determination

Topics: principles of option pricing; a two-state model, with generalisations to the binomial and to the Black-Scholes model; explicit and implicit volatility; contingent claims analysis.

Required reading:

Economics of Financial Markets, chapter 18

Suggestions for further reading:

Hull, J. *Fundamentals of Futures and Options Markets*, chapters 12, 13

Jarrow, R. A. (1999) “In Honor of the Nobel Laureates Robert C. Merton and Myron S. Scholes: A Partial Differential Equation That Changed the World” *Journal of Economic Perspectives*, vol. 13(4), Fall 1999, pp. 229 – 248

Elton and Gruber, chapter 23 (pp. 582 – 593)

Acharya, V.V. and M. Richardson: *Restoring Financial Stability: How to Repair a Failed System*, Wiley, 2009, chapter 6

University week 22 (beginning 27 February 2012) Options Markets: III Applications

Topics: stock index options; options on futures; interest rate options; hedging with options; portfolio insurance strategies; combinations and spreads

Required reading:

Economics of Financial Markets, chapter 19

Suggestions for further reading:

Hull, J. *Fundamentals of Futures and Options Markets*, chapters 11, 16

University week 23 (beginning 05 March 2012) Swap Contracts and Swap Markets

Topics: Varieties of swaps; plain vanilla interest rate swaps; currency swaps; credit default swaps (CDS); role of CDSs in the credit crisis of 2008; swap contracts and Metallgesellschaft – a case of hedging or speculation?

Required reading:

Economics of Financial Markets, chapter 17.

Suggestions for further reading:

Hull, J. *Fundamentals of Futures and Options Markets*, chapters 7, 23

Acharya, V.V. and M. Richardson: *Restoring Financial Stability: How to Repair a Failed System*, Wiley, 2009, chapter 11

Wall, L. D. & J. D. Pringle (1993) “Interest rate swaps: a review of the issues” in *Financial Derivatives: New Instruments and Their Uses*, Federal Reserve Bank of Atlanta, pp. 70 – 85

University week 24 (beg. 12 March 2012) Financial Intermediation I: Fundamentals

Topics: the role(s) of financial intermediaries in financial markets; functions of financial intermediaries; securitisation, monitoring and collateral.

Required reading:

Gorton, G. and A. Winton (2003) “Financial Intermediation”, chapter 8 (sections I, II, III) in *Handbook of the Economics of Finance*, edited by G. M. Constantinides, M. Harris and R. M. Stulz, vol. 1A (Pre-publication version available online: search for “Gorton and Winton Financial Intermediation”)

Suggestions for further reading:

Allen, F. & D. Gale (2000) *Comparing Financial Systems*, MIT Press, chapters 1, 2, 3
Freixas, X. & J-C Rochet (2008) *Microeconomics of Banking*, 2 ed, chapter 1
Merton, R. C. “A Functional Perspective of Financial Intermediation”, *Financial Management*, vol. 24(2), Summer 1995, pp. 23–41

University week 25 (beginning 19 March 2012) Financial Intermediation II: Bonds versus Loans

Topics: loan contracts and bond contracts; marketable debt; moral hazard and adverse selection in the loan and bond markets.

Required reading:

Freixas, X. & J-C Rochet (2008) *Microeconomics of Banking*, 2 ed, chapter 2

Suggestions for further reading:

Allen, F. & D. Gale (2000) *Comparing Financial Systems*, MIT Press, chapters 13, 14, 15
Freixas, X. & J-C Rochet (2008) *Microeconomics of Banking*, 2 ed, chapter 1
Holmstrom, B. and J. Tirole (1997) “Financial Intermediation, Loanable Funds and the Real Sector”, *Quarterly Journal of Economics*, vol.112, No. 3 (Aug. 1997, pp. 663–691
Song, F. & A. V. Thakor (2010) “Financial System Architecture and the Co-evolution of Banks and Capital Markets”, *Economic Journal*, Issue 120, September 2010, pp. 1021–1055
Diamond, D. W. “Financial Intermediation as Delegated Monitoring: A Simple Example”, Federal Reserve Bank of Richmond *Quarterly Review*, vol. 82/3, Summer 1996, pp. 51--66
