

BFM102 VALUATION OF INVESTMENTS

Academic Year 2012/13

Number of Aston Credits: 30

Number of ECTS Credits: 15

Module Runs Over 2 Terms.

Staff Member Responsible for the Module:

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Availability: See 'Office Hours' posted on Blackboard
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Other Staff Teaching the Module:

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Pre-requisites for the Module:

Module available on MSc Finance and Investments and MSc Investment Analysis

Mode of Attendance:

On-Campus, daytime

Module Objectives and Learning Outcomes:

This module provides an understanding of security valuation and portfolio management, within the fixed income and derivative markets. The first term will be concerned with the valuation and management of fixed income securities and futures contracts, while the second term will focus on the pricing of options contracts, exotic derivatives, corporate securities, swaps and credit risk.

On completion of the module, students should be able to:

- > Explain the features of debt securities
- > Explain the risks associated with investing in bonds
- > Understand bond sectors and instruments
- > Understand yield spreads
- > Explain the basic valuation of debt securities
- > Understand yield measures, spot rates and forward rates
- > Use duration and convexity in bond portfolio management
- > Value bonds with embedded options
- > Understand the basic concepts of bond portfolio immunization
- > Explain how credit derivatives work
- > Understand the determinants of futures prices
- > Characterize the no-arbitrage bounds on option prices
- > Apply option pricing models
- > Understand the pricing of interest rate options
- > Explain trading and hedging strategies with options and futures

Module Content:

Fabozzi = Fixed Income Analysis, by Frank J. Fabozzi

Hull = Options, Futures and Other Derivative Securities, by J.Hull

Week 1: Features of debt securities (Fabozzi, Chapter 1)
Risks associated with investing in bonds (Fabozzi, Chapter 2)

Week 2: Overview of bond sectors and instruments (Fabozzi, Chapter 3)

- Week 3:** Understanding yield spreads (Fabozzi, Chapter 4)
- Week 4:** Introduction to the valuation of debt securities (Fabozzi, Chapter 5)
- Week 5:** Yield measures, spot rates, and forward rates (Fabozzi, Chapter 6)
- Week 6:** Introduction to measurement of interest rate risk (Fabozzi, Chapter 7)
- Week 7:** Futures markets and trading (Hull, Chapters 1 & 2)
- Week 8:** Futures pricing and hedging strategies (Hull, Chapters 3 & 5)
- Week 9:** Revision
- Week 10:** **Class Test**
- Week 11:** Options markets and trading
- Week 12:** Principles of options pricing
- Week 13:** Binomial and Black Scholes option pricing models
- Week 14:** Investment strategies with options
- Week 15:** Exotic options and futures contracts
- Week 16:** Interest rate derivatives
- Week 17:** Valuing bonds with embedded options (Fabozzi, Chapter 9)
- Week 18:** Portfolio Immunization and Cash Flow Matching (Fabozzi, Chapter 19)
Credit derivatives in bond portfolio management (Fabozzi, Chapter 24)
- Week 19:** Revision
- Week 20:** **Final Examination**

Corporate Connections:

The module will draw on the experience of investment professionals wherever possible.

International Dimensions:

In the presence of global financial markets, the study of finance and investments naturally transcends national boundaries. Finance theory is applicable regardless of setting, and this module will draw on a large body of international empirical evidence.

Contribution of Research:

At the level of an advanced MSc programme, module content will always connect directly with the research literature. Although there will be reference to textbooks, it will be essential to read the prescribed research papers to gain the most from this module. This reading will include both classics in the literature and the latest international research.

Ethics, Responsibility & Sustainability:

This module is concerned with the study of finance and investments that take place in the context of global markets where issues of governance, uncertainty and risk are of particular relevance.

Method of Teaching:

Classroom-based teaching and learning will comprise a sequence of lectures (3 hours per week) that will be the primary mode of delivery of the knowledge required to achieve the learning outcomes. In addition to formal class contact hours, students are expected to follow the suggested learning hour guide in allocating time for private study.

Method of Assessment and Feedback:

This module will be assessed by a 1.5 hour unseen, closed book final exam at the end of Term 2, and a 1.5 hour unseen closed book class test at the end of Term 1. Feedback will be through tutor meetings. Each component of assessment counts for 50 percent of the marks for the module.

Learning Hours:

Contact hours	60
Directed Learning - Exercises	100
Further Private Study	140
Total	300

The following essential and recommended readings are subject to change. Students should not therefore purchase textbooks prior to commencing their course. If students wish to undertake background reading before starting the course, many of the chapters/readings are available in electronic form via on-line library catalogues and other resources.

Essential Readings:

1. Fabozzi, F., *Fixed Income Analysis (CFA® Institute Investment Series)*, John Wiley & Sons, 2nd edition, 2007 (hard copies in library).
2. Hull, J., *Options, Futures and Other Derivative Securities*, Prentice Hall, 8th edition, 2012 (hard copies in library).
3. You will be given journal articles and other readings periodically to ensure that you are up-to-date on relevant topics.

Other Readings:

1. Johnson, R. Stafford, *Bond evaluation, selection, and management*, John Wiley & Sons, 2nd edition, 2010 (electronic copy on library website).
2. Bodie, Z., A. Kane and A. Marcus, *Investments*, McGraw Hill, 7th edition, 2008 (hard copies in library).

Reuters 3000 Xtra:

The trading room has access to Reuters 3000 Xtra which contains a lot of financial information (see link below). It will be used in class periodically to illustrate relevant class room concepts. Please make it a point to spend time on the terminal. You may be tested on the exam from some of the material covered. The Reuters helpdesk is very efficient and will answer questions promptly.

http://thomsonreuters.com/products_services/financial/financial_products/a-z/3000_xtra/

