



APPLIES TO ACADEMIC YEAR 2007/2008

## GRA 6539 Fixed Income Securities

### Program

Advanced Specialization Course (MSc), Master of Science in Business and Economics, Master of Science in Business and Economics (Finance), Master of Science in Financial Economics

### Responsible for the course

Bernt Arne Ødegaard

### Department

Financial Economics

### Term

According to study plan

### ECTS Credits

6

### Language of instruction

English

A fixed income security is a security where the potential payments from the security are written down in detail at the issue of the security. The classical example of a fixed income security is a treasury bond, which offers fixed interest payments. Since it has been issued by the treasury, there is no uncertainty about the future cash flows from the bond. The only uncertainty about this bond is the value of the future payments, which mainly depends on future interest rates. The analysis of fixed income securities is simplified by the fact that there is only one important source of uncertainty, the current and future interest rates, or term structure. However, this is also a challenge for the analysis, because this gives scope for very detailed modeling of the evolution of the term structure, which is then reflected in the prices of fixed income securities and their derivatives.

### Objective

The students should achieve an understanding of the workings of fixed income markets and interest rate modeling. Emphasis is on the pricing of fixed income securities, including fixed income derivatives.

### Prerequisites

GRA 6533 Theory of Finance

### Compulsory literature

#### Books:

Tuckman, Bruce. 2002. Fixed income securities : tools for today's market. 2nd ed. Hoboken, N.J. : Wiley

### Recommended literature

### Course outline

The following gives an overview of the topics to be covered in the course. The textbook is good on institutional detail, but not detailed enough on some more specific topics. It will therefore be supplemented by a number of articles.

The following topics will be covered:

- Institutional about fixed income markets
- Bond pricing
- Bond Duration.
- The term structure of interest rates
- Yield curve calculations with both continuous and discrete compounding
- Yield curve estimation
- Term structure theory
- Securityzation
- Portfolios of bonds

- Fixed income derivatives
- Institutional
- Basic derivatives theory.
- Tree based derivatives pricing.
- Credit risk

**Computer-based tools**

Will be used, Blackboard/homepage

**Course structure**

36 hours of lectures, including case discussions.

Specific information regarding any aspect of student evaluation will be provided in class. Please note that whilst attendance is not compulsory, it is the students responsibility to obtain any information provided in class that is not included on the course homepage/Blackboard or text book. Homepages and/or Blackboard are not designed for the purpose of students who choose not to attend class.

**Evaluation**

Your course grade will be based on the following activities and weights: 65% will be based on a final exam (3 hours) , the remainder (35%) will be based on class work (in the form of a mix of some/all of the following: case write up projects, and homeworks; case presentation and class participation; in class midterm and quizzes).

Both parts of the evaluation need to be passed in order to get a grade in the course.

**Evaluation code(s)**

GRA 65391 class work and exam accounts for 100% of the final grade in the course GRA 6539.

**Aids at the examination**

Advanced Calculator, Interest Tables. Bilingual dictionary.

Support materials at written examinations are explained under exam information in our web-based student handbook. Please note use of calculator. <http://www.bi.no/studenthandbook>.

**Makeup exam**

Re-takes are only possible at the next time a course will be held. When course evaluation consists of class participation or process elements, the whole course must be re-evaluated when a student wants to retake an exam. Retake examinations entail an extra examination fee.

**Honor Code**

Academic honesty and trust are important to all of us as individuals, and represent values that are encouraged and promoted by the honor code system. This is a most significant university tradition. Students are responsible for familiarizing themselves with the ideals of the honor code system, to which the faculty are also deeply committed.

Any violation of the honor code will be dealt with in accordance with BI's procedures for cheating. These issues are a serious matter to everyone associated with the programs at BI and are at the heart of the honor code and academy integrity. If you have any questions about your responsibilities under the honor code, please ask.