Content: The purpose of this course is to introduce students to the theory of No-Arbitrage Discrete-Time Asset Pricing following the Stochastic Discount Factor (SDF) modelling principle. The lectures will, first, rapidly remember basic notions of asset pricing in a one-period (static) model (Law of One Price, No-Arbitrage Principle, First and Second Fundamental Theorem of Asset Pricing) and, then, they will focus on the asset pricing modelling setting formalized by Bertholon, Monfort and Pegoraro (2008), and based on three main ingredients: (i) the historical discrete-time dynamics of the factor representing the information, (ii) the stochastic discount factor (SDF), and (iii) the discrete-time risk-neutral (R.N.) factor dynamics. In this general framework, we distinguish three modelling strategies: the direct modelling, the RN constrained direct modelling, and the back modelling. These modelling strategies will be applied to two important domain: a) security market models and associated European Option pricing models and b) yield curve models. Empirical examples will be also provided.

Structure of the course: The course will involve the following lectures:

- Wednesday, May 18, 2010. From 14:00 to 18:00.
- Thursday, May 19, 2010. From 08:00 to 12:00.
- Friday, May 20, 2010. From 08:00 to 12:00.
- Monday, May 23, 2010. From 08:00 to 12:00.
- Monday, May 24, 2010. From 08:00 to 12:00.
- Monday, May 25, 2010. From 08:00 to 12:00.
Course Literature:


**About the exam:** Groups of two students each are asked to write a report (20 pages maximum) about one of the following papers (other papers, linked to the course, may be included in the list). Groups of one student are allowed, upon request, only for specific reasons. The first part of the report has to include:

1. a precise and clear summary of the paper in which the relevance of the results is discussed;
2. a motivated presentation of the features and limits (drawbacks) of the proposed asset pricing model and/or the associated empirical analysis.

In the second part of the report, the students have to propose a way to improve the paper’s performances or to overcome its previously mentioned limits (i.e., limits affecting the specification of model and/or the empirical analysis). A small scale empirical analysis may therefore be introduced in the report.

The grade of the exam will be based on course participation (20%) and on the quality of the report (80%).

The report has to be sent at the email address **pegoraro@ensae.fr** and the deadline is June 25, 2011.


