



**LEE KONG CHIAN SCHOOL OF BUSINESS**  
Year 2008/09Term 3A

**FNCE204 – ANALYSIS OF FIXED INCOME INVESTMENTS**

Instructor: Ser-Keng Ang  
Tel: 6828 0284  
Email: skang@smu.edu.sg  
Office: Room 4071, Lee Kong Chian School of Business

**COURSE DESCRIPTION**

This course examines in detail the fixed income securities (non-equity) market, which comprises instruments such as treasury (government), municipal, and corporate bonds. Instruments such as convertible bonds and various forms of securitizations will also be covered.

The course is designed to help you understand the aspects of modern theory of finance and how these developments can be translated into prudent practices.

The course begins with the overview of the fixed income market (global, regional and local); the growing importance and influence as an instrument for financing for corporations/institutions, governments and supranational agencies; and definition/characteristics of a fixed income instrument. We will then delve into the basics of bond valuation (fixed income mathematics) and explore the relationship between bond prices, yields, and risks (bond price volatilities). With this foundation, we will examine bond volatility and the concept of duration. Next, we shall discuss the determinants of the general level of interest rates and the term structure of interest rates, as well as explore the relationship between the term structure and bond prices in general.

In the latter part of the course, we will explore the concept of risk management and then examine specific instruments such as government bonds, securitizations (such as Mortgage-Backed (MBS), Asset-Backed Securities (ABS) and Collateralized Debt Obligations (CDO)), and other fixed income instruments.

In addition to the theories of fixed income, the course also aims to provide participants with an understand of how investment banks originate, underwrite and trade these instruments, as well as how these origination efforts relate to the sales and marketing of other products and services sold to clients.

## **PREREQUISITES**

Please refer to the Course Catalogue on OASIS for the most updated list of pre-requisites / co-requisites for this particular course.

Do note that if this course has a co-requisite, it means that the course has to be taken together with another course. Dropping one course during BOSS bidding would result in both courses being dropped at the same time.

## **RECOMMENDED TEXT AND READINGS**

Author: Frank J. Fabozzi

Title: “Bond Markets, Analysis and Strategies” (Int’l Edition) – 6th Edition

Publisher: Prentice Hall

ISBN 0-13-243626-4

Additional readings will be assigned. Students are expected to keep abreast of current developments in the Asia-Pacific region by reading leading business dailies/weeklies like the Asian Wall Street Journal, Far Eastern Economic Review, The Economist, Business Times and Business Week.

## **ASSESSMENT METHOD**

Class Quiz: 25%

Final Quiz: 30%

Group Project/Presentation: 35%

Class Participation: 15%

Format for the quizzes and exams will be open book/notes.

The Group Project will be focused on discovering the different segments of the bonds market globally. Topics and subject matter covered will be flexible and would be dependent on the interest of the group. Each group will be given 15 minutes to present their findings. There will be a 5-minute Q&A session. The objective of the project is learning through each other’s research effort.

## **OPTIONAL ASSIGNMENT**

There is an assignment on immunization that is both interesting and useful to do. I am happy to provide guidance to anyone who is keen to take a crack at the assignment. However, **this will not form part of the course grades.**

## **COURSE METHODS**

The course will be taught utilizing a combination of practice questions from the end of text, case studies and quizzes to help internalize concepts learnt.

At the same time, references will be made to real life examples to ensure the connection to the real world.**CALCULATOR**

Any financial calculator with NPV and IRR function keys. Examples include: Hewlett Parkard 17B-II, 12C, 10B and Texas Instruments BAI PLUS.

Despite the pervasive use of Excel, the financial services industry still uses these calculators. As such, it pays to invest in one of these.

These will be used extensively in class and is the only thing you will be allowed in the exams (**since no laptops are allowed in quizzes and final exams**).

## CLASS SCHEDULE

Session	Topic and Assignments	Readings
1	Introduction to Fixed Income Securities	Chapter 1 & 7 (relevant parts only)
2	Determinants of the General Level of Interest Rates Term Structure of Interest Rates	Chapter 5
3	Concept of Risk and Credit Ratings Credit Enhancement Non-conventional bonds	Chapter 7
4	Primary Market Issues including, Bond Refinancing, Debt Origination and Underwriting  External speaker: Bill Streeter Managing Director & Head of Global Infrastructure & Project Finance Asia Pacific Fitch Ratings	Chapter 7
5	Fixed Income Mathematics	Chapters 2 & 3
6	Bond Price Volatility I: PVBP & YV of a Price Change & Hedging	Chapter 4
7	Bond Price Volatility II: Duration, Immunization and Convexity	Chapter 4
8	Preparation for class quiz (no class session)	
9	* Short class quiz I (only until topics covered in session 6) – 25% of the total grade  Special Topics – Bloomberg as an analytical tool in fixed income & fixed income trading	Session notes
10	Analysis of Bonds With Embedded Options Analysis of Convertible Bonds	Chapter 17 Chapter 19

11	<p>Special Topic – Risk Management For Credit Risk</p> <p>Special Topic - Securitizations (Mortgage-Backed (MBS), Asset-Backed Securities (ABS) and Collateralized Debt Obligations (CDO))</p>	<p>Selective parts of Chapter 29</p> <p>Selective parts of Chapters 10 to 15</p>
12	<p>Buffer...to catch up with the topics... (we shall see if we need this slot. Else, this free slot will be for your group presentation and final quiz preps)</p>	
13	<p>Group presentations (for all groups) As agreed in class, all presentations will be done during this session. It will be equivalent to two sessions. Hence please be prepared to stay till about 7pm...</p>	
14	<p>Final quiz – 30% of the total grade (2 hours)</p>	

Bond Markets, Analysis and Strategies (6th Edition). Frank J Fabozzi. This title is out of print. Bond Markets, Analysis and Strategies, 6th Edition. Frank J. Fabozzi, EDHEC Business School. ©2007 | Pearson. Target Market: Fixed Income Securities Courses or Bond Markets Courses. Fabozzi's, Bond Markets, prepares students to analyze the bond market and use the tools for managing bond portfolios. Many texts on the market are far too theoretical, Fabozzi is quite the opposite. This text covers Bonds, analytical techniques for valuing bonds and quantifying their exposure to changes in interest rates, and portfolio strategies for achieving a client's objectives. Features. Fabozzi's, Bond Markets, prepares students to analyze the bond market and use the tools for managing bond portfolios. 8e Edition. Frank Fabozzi. For students enrolled in Fixed Income Securities Courses or Bond Markets Courses. An applied approach to understanding bond markets. Through its applied approach, Fabozzi's Bond Markets prepares students to analyze the bond market and manage bond portfolios without getting bogged down in the theory. This edition has been streamlined and updated with new content, and features overall enhancements based on previous editions' reader and instructor feedback. Lire la suite. VitalSource eBook (VitalBook) - En anglais 58,00 €, DRM. Fixed-principle treasury securities include Treasury bonds, Treasury notes and Treasury bills. They differ from each other in following aspects: 1. Issuance value: Bills (Treasury) are issued at a value less than value at par. They are issued at a discount price. On the other hand, Treasury bonds and Treasury notes are issued at par value. 2. Coupon payment: Since Bills (Treasury) are issued at a discount price, no coupon interest is paid. Treasury notes and Treasury bonds involve coupon interest payment. Hence they are also called as Coupon securities. 3. Maturity value: All Fixed-principle t