The Hong Kong University of Science & Technology

Department of Finance

FINA 361: Fixed Income Securities

Spring 2007

L1: Tuesday & Thursday 10:30-11:50, Room 4502
L2: Tuesday & Thursday 12:00-13:20, Room 4502

Instructor: Prof. Jonathan A. Batten
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Working Papers on the Social Science Research Network:
http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=160949
Office hours: Wednesday 13:30 – 15:30 and otherwise by appointment.

Teaching Assistant: TBA

Course Outline

This course covers basic analytical tools in fixed-income securities, major fixed-income markets, interest rate derivatives, bond portfolio management and credit derivatives such as credit default swaps. Theories, quantitative skills and their applications in the bond markets will be emphasized. Examples from Bloomberg and Reuters screens and EXCEL examples will be used to assist the illustration of how market practitioners apply the theories and concepts for their bond investments and trading. The course aims to prepare students with the basic and necessary knowledge to advance their study in fixed-income securities and/or start working in the bond-investment industry.

The specific objectives of this course are to

- describe important fixed income securities and the institutional arrangements prevailing in fixed income markets, and
- develop the analytical tools necessary for valuing fixed income securities and managing interest rate risk.

The first part of the course covers the basic analytical tools used in analysing fixed income securities. These include: present value, prices and yields of default free, Government bonds, forward interest rates, the relation between bond prices and spot and forward interest rates, term structure theories and bond portfolio management tools like duration analysis, convexity measures and immunization techniques.

The second part of the course introduces the different segments of the bond market which include: government bonds, corporate bonds and Non-U.S. bonds.

The last part of the course deals with valuation and practical use of financial instruments closely related to fixed income securities. These include forward and futures contracts on fixed income securities, interest rate options, bonds with embedded options like callable bonds and convertible bonds, interest rate swaps, and mortgage-backed securities.

Required Textbook

(FF) Frank J. Fabozzi, 2006, Bond Markets, Analysis and Strategies, 5th edition, Pearson Education/Prentice Hall.

Other Useful References- Also see other academic Papers available on the Social Science Research Network (see www.ssrn.com):

Bank for International Settlements, “BIS Quarterly Review: International Banking and Financial Market Developments” See latest available on: www.bis.org

Batten, Jonathan A. and Szilagyi, Peter G., "Disintermediation and Bond Market Development in Japan" (February 14, 2002). Deakin University Working Paper No. 2002-02. Available at SSRN: http://ssrn.com/abstract=300619

Batten, Jonathan A., Fetherston, Thomas A. and Hoontrakul, Pongsak, "Factors Affecting the Yields of Emerging Market Issuers in International Bond Markets: Evidence from Thailand" (Jun 14, 2001). Available at SSRN: http://ssrn.com/abstract=292920

Batten, Jonathan A. and Szilagyi, Peter G., "Developing Foreign Bond Markets: The Arirang Bond Experience in Korea" (May 2006). IIIS Discussion Paper No. 138 Available at SSRN: http://ssrn.com/abstract=923783

Brown, Kym, Batten, Jonathan A. and Skully, Michael T., "Financial Development in the Asia-Pacific Region" (March 16, 2006). Available at SSRN: http://ssrn.com/abstract=891607

Faria, Andre, Mauro, Paolo , Minnoni, Martín and Zaklan, Aleksandar, "The External Financing of Emerging Market Countries: Evidence from Two Waves of Financial Globalization" (September 2006). IMF Working Paper No. 06/205 Available at SSRN: http://ssrn.com/abstract=934464

Pynnonen, Seppo, Hogan, Warren P. and Batten, Jonathan A., "Dynamic Equilibrium Correction Modelling of Yen Eurobond Credit Spreads" (March 2006). IIIS Discussion Paper No.127 Available at SSRN: http://ssrn.com/abstract=923768

Renneboog, Luc and Szilagyi, Peter G., "How Do Mergers and Acquisitions Affect Bondholders in Europe? Evidence on the Impact and Spillover of Governance and Legal Standards" (August 2006). ECGI Finance Working Paper No. 125/2006 Available at SSRN: http://ssrn.com/abstract=907141

Renneboog, Luc and Szilagyi, Peter G., "Corporate Restructuring and Bondholder Wealth" (March 2006). TILEC Discussion Paper No. 2006-007 Available at SSRN: http://ssrn.com/abstract=899072

Sharma, Krishnan, "The Underlying Constraints on Corporate Bond Market Development in Southeast Asia" (September 2000). United Nations DESA Working Paper No. 14. Available at SSRN: http://ssrn.com/abstract=245968

Warnock, Francis E. and Burger, John D., "Diversification, Original Sin, and International Bond Portfolios" (April 2003). FRB International Finance Discussion Paper No. 755. Available at SSRN: http://ssrn.com/abstract=381861

Assessment
Midterm exam: Thursday March 22nd 2007: worth 25 % (1.5 hours)
Final exam: Date TBA: worth 50 % (3 hours)
Essay: Due Sunday 13th May 2007: worth 25%

The essay has to be a maximum of 1500 words and should follow the style of an academic article (introduction, literature-theory, literature-empirical evidence, analysis/discussion, conclusion, references).

The essay should be typed in the body of an email and then emailed to jabatten@hotmail.com with [FINA361(space)Essay(space)Student Number(space)Family Name] in the email subject by midnight on the 13th May Hong Kong time. Late submissions will be automatically penalised 5-marks for 1-day late, 8-marks for 2-days late, 10-marks for 3-days late, 11-marks for 4-days late and 12-marks for 5-days late. Submissions later than 5-days will receive no marks at all.

There are 2 possible topics- you must choose either A or B:
(A) A recent article in The Economist argued that, "Emerging economies that depend heavily on the whims of foreign investors to keep themselves afloat will find it very tough to compete, which is why emerging debt under performs when rates rise…." This explains why credit spreads on emerging market bonds have recently risen after declining for most of the last four years. Do you agree? Explain your answer.

(B) Articles investigating corporate and foreign bond market development highlight the interlocking relationships between corporations, banks and governments that have dissuaded bond issuance by companies and also contributed to the underdevelopment of the demand side of the markets, especially in the Asia-Pacific region. Thus it is critical for the next stage of development of these markets for extensive reforms to be made of the institutional side-rather than necessarily the infrastructure side-of markets. Do you agree? Explain your answer.

The midterm test will cover topics 1-6 and will a multiple choice test. The final exam covers the entire course and will last 3 hours and will be a mixture of short answer and multiple choice (more details later) You may bring to the exams an A4-size data sheet, on which you can write anything you like (typing ok) on both sides. Cheating will not be tolerated. Any student caught cheating in the exams will receive zero credit and may face further disciplinary actions.

Homework assignments
There will be 4 homework assignments. Homework assignments will be collected before the lecture on due dates. Late assignments will not be accepted. Each overdue assignment results in minus 5 points in the total grade. The list of problems taken from the end of each chapter of the book and the due dates

will be distributed in class. These problems provide a good preparation for the exams and you are strongly encouraged to attempt to solve them individually. Solutions will be available after due dates.

TOPICS		Minimum Readings (Chapter in FF)
Part 1	Basic Analytical Tools	
	1. Overview of fixed income markets	1
	2. Yield to maturity and spot rates	2, 3
	3. Duration and convexity	4
	4. Forward rates and term structure theories	5
	5. Floating rate instruments	2, 22
Part 2	Types of Bond Markets	
	6. Government bond markets	6
	7. Corporate bond markets	7
	8. Asian and global perspectives	8, 9
Part 3	Fixed income derivatives	
	9. Interest rate futures	26
	10. Interest rate options	27
	11. Callable and convertible bonds	17, 18, 19
	12. Interest rate swaps	28
	13. CMOs and other and other Credit derivatives	15, 29

Miscellany

Each student is required to hand in a name card with a recent photo in the following format by the end of the third week.

Your Photo

HKUST, FINA361, Spring 2005, L1
Name (English): Law Suet-Ming, Lisa
Name (Chinese):
ID number: 98000001
E-mail Address: fn smlaw@stu.ust.hk
Major: Finance