

## **FINA 544: Risk Management for Financial Institutions**

Spring 2010

### **Instructor:**

Professor Jonathan A. Batten

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### **Teaching Assistant:**

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### **Class Times:**

Thursday 19:00-22:20 Venue: 33/F, 9 Queen's Road, Central

Saturday 14:30-17:50 Venue: HKUST, Room 4620

### **Course Objectives**

This course focuses on the practical aspects of treasury and risk management in financial institutions. Note that many large multinational (non-financial) corporations also mimic banks in the management of their financial operations. The course will cover trading strategies in foreign exchange, money market instruments and derivative products, risk management in treasury operations, value-at-risk and asset/liability management techniques in financial institutions. Where possible class lectures and presentations will utilise trading and information technology examples from Reuters and Bloomberg.

Upon completion of this course, students will be able to:

1. Be able to conduct research relating to practical questions regarding financial institutions risk management.
2. Explain how financial institutions throughout the world are integrated.
3. Describe the primary financial intermediaries in the U.S. and international financial systems and how they operate.
4. Demonstrate an understanding of risk and its role in shaping financial decisions in financial institutions.
5. Demonstrate an understanding of key derivative instruments in financial markets, including futures, options, and swaps can be used by financial intermediaries for risk management.
6. Explain the theoretical foundations of financial intermediation versus direct finance.
7. Describe the major financial issues facing risk management of financial intermediaries today.
8. Analyze Asset-Liability Management Techniques and related Hedging techniques.
9. Synthesize and integrate Commercial Bank Investment and Liquidity Issues.
10. Explain the changes in the Commercial Bank Industry and their effects on industry
11. Obtain necessary level of information literacy and information competency skills – identify, navigate and use business information effectively from multiple reliable resources
12. Be able to write a professional case research paper with team members.
13. Be able to present key case findings of team analysis to peers in class.

14. Be able to articulate the key abuses of financial derivatives in the management of financial institutions.
15. Demonstrate knowledge of the key terminology used in bank management.

### **Course Assessment**

- Class Participation 10%. Note that students will be randomly asked to answer homework as well as concept questions in class.
- Exercises: Questions in the textbook (not graded), homework questions and class trading games (optimal participation).
- Group work: 40% of the course grade. Students will be required to form groups of a maximum of 5 or 6 members).
- Final Exam: 50% of the course grade. The 2-hour exam will be held on Sunday 28th March 2010 and will be based entirely on class and set material. It will comprise a short essay based on class discussion questions (10 marks = 30 minutes) and then a series of short problems and concept questions (30 multiple choice = 90 minutes). The exam essay questions will be based entirely on those discussed in class. You will be expected to take your own notes on these discussions

### **Prerequisites (Essential Background Knowledge)**

- Basic knowledge of bonds and stock pricing, CAPM, portfolio theory, market efficiency and statistics (or econometrics). Some knowledge of Microsoft Excel.
- Basic knowledge of derivatives and forward contracts and the pricing and arbitrage relationships underpinning these financial products.
- If you are not familiar with the US and international regulatory system please refer (broadly) to the early chapters of the textbook (Rose and Hudgins chapters 1-4 and see the discussion on [www.bis.org](http://www.bis.org))

### **Recommended Books**

1. Bank Management and Financial Services (Peter S. Rose and Sylvia Hudgins), McGraw-Hill Irwin, (8th edition, 2010): ISBN13: 9780077303556; ISBN10: 0077303555
2. Financial Institutions' Management: A Risk Management Approach (Anthony Saunders and Marcia Cornett) Irwin-McGraw Hill 2005+
3. Options, Futures and Other Derivatives (John Hull) Pearson Prentice Hall 2006+

### **Term Project: Treasury Risk Management Practice in Asia-Pacific Banks or Financial Institution (hedge and mutual funds included)**

Students will be required to form groups of either 4-6 students and investigate the recent (in the past 6 months) treasury and risk management activities of a **financial** institution operating in a number (minimum 4) of countries (assume that Hong Kong and Taiwan are separate countries). The institution should have assets of at least US\$1 billion and have a specific organisational unit responsible for treasury, risk management and trading.

The groups are required to analyse the key financial and risk management issues associated with the institutions activities. A brief presentation (maximum 5 minutes) of the case study should be made to the entire group in class 7. NB. THE 5-MINUTE TIME LIMIT WILL BE OBSERVED BY ALL GROUPS TO ALLOW ALL GROUPS TO HAVE SUFFICIENT TIME TO PRESENT THEIR PROPOSAL.

The class presentation (25-27 March 2010) should address the following:  
What are the key risk management issues for the institution?

- What is the scale and scope of your analysis?
- What are methods the group will use for determining the appropriate treasury risk management strategy?

The final case-study report should have the following structure:

1. An **Executive Summary** (maximum 200 words)
2. An **Introduction** that addresses the scale, scope and key issues of your report (maximum 400 words). It is important to mention how the scope of your report is limited, that is, what is **not** being investigated as well as what is being investigated (eg. the focus maybe on the management of foreign exchange and interest rate risk only, not commodity or other forms of risk).
3. An **Analysis** section that investigates the key issues through a formal methodology (maximum 600 words). This methodology might be a cost-benefit, SWOT (Strengths, Weaknesses, Opportunities, Threats), or Porter type analysis (etc.). It is important that the actual investigation be linked to the specific issues mentioned in the introduction. The method used for analysis is up to each group.
4. An **Assessment of Impacts** section which links outcomes and analysis to the specific issues originally raised in the Introduction (maximum 500 words). The objective of this section is to highlight the impacts on the firm of changes in the firm's existing approach to risk management (e.g. a new strategy may increase US dollar foreign exchange risk, which is eliminated by a financing strategy where the debt (and the consequent interest payments) are denominated in the US dollars).
5. **Conclusion** (maximum 300 words) which includes the group's recommendations of the appropriate risk management strategy.
6. The final section should include all the **References** cited in the report.

Overall the case study should not exceed 2,000 words excluding diagrams and charts. Write concise clear statements and do not pad the study with details other than material pertaining to your analysis. E.g. DO NOT include photocopies of Annual Reports, newspaper and journal articles; these should be cited in the References section.

The case study is worth **40 of the 100 marks** and these marks will be allocated:

- 5 marks for the proposal presentation
- 5 marks for the Executive Summary
- 5 marks for the Introduction
- 10 marks for the Analysis
- 10 marks for the Assessment of Impacts
- 5 marks for the Conclusion

### Course Outline

Week	Date	Topic	References
1	4-6 February	Introduction	Background RH 1-5
2	18-20 February	Asset Liability Management	RH 7
3	25-27 February	Derivatives and Hedging	RH 8
4	4-6 March	Securitisation and Credit Derivatives	RH 9
5	11-13 March	Liquidity, Reserves, Capital Management	RH 11, 15
6	18-20 March	Credit Management and Loan Pricing	RH 16, 17
7	25-27 March	Measuring Performance and Evaluation	RH 6
8	28 March	EXAM	