

Hong Kong University of Science & Technology

FINA 515: Corporate Risk Management

Fall 2006 – Draft Syllabus (Final version available on November 4)

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Warning: I will not be reading this personal e-mail in real time.
Office hours: By appointment only.

Class Schedule: November 4 to December 23, Saturdays from 9:00 to 12:20, Room: TBA

Course Website: <http://webct.ust.hk>

COURSE OBJECTIVE

This course introduces you to financial risk management and financial engineering from the perspective of non-financial corporations. You will learn why firms should or should not manage risk, whether they do manage risk, and how to measure and manage risk. Whereas previous courses you have taken examine the institutional details and valuation of derivative securities, this course shows you how to maximize shareholder value through proper risk management. As Rene Stulz points out in the preface to the course textbook, most students are trained to price derivatives but few are trained how to use them. In reality, most students will become users of derivatives but few will trade them. This course aims to correct this imbalance by equipping you with the right tools and insights to manage risk in a corporate setting. To highlight the practical relevance of the course materials we will discuss a number of real-world cases throughout the course.

INSTRUCTION

This course is co-taught by Professor MacKay of HKUST and Mr. Pascal Vinais, Executive Director, Investment Banking, Equity Risk Management, UBS. Professor MacKay will teach five lectures, administer the exam, and oversee the academic aspects of the course. Mr. Vinais has kindly agreed to teach two lectures related to his area of expertise, thus providing insights on the more practical side of real-world corporate risk management.

COURSE PREREQUISITES

Prerequisite to this course is the successful completion of FINA 512: Corporate Finance, or equivalent. You should also be familiar with the basic aspects of derivative securities. A derivatives course such as FINA551: Options and Futures Markets is highly recommended. Material covered in those courses is assumed knowledge. Finally, prior completion of a course in international finance or economics will prove useful but not essential.

If you are not yet proficient with the spreadsheet program Microsoft EXCEL it is vital that you become so now. We will be using this program extensively throughout the course. In the past, many students have wasted a lot of time simply because they did not know how to use EXCEL effectively. If you have never used EXCEL, or if you are rusty, we recommend you go through an EXCEL tutorial such as Excel Applications for Investments by Troy A. Adair, Jr., McGraw Hill Irwin International. A copy is on reserve at the library.

READINGS

1. Required Materials

R. Stulz (2003), Risk Management and Derivatives, Thomson – South-Western College Publishing, ISBN 0-538-86101-0.

Harvard Business School (HBS) materials::

Learning by the Case Method, HBS 9-376-241 (*Optional*)

Why Manage Risk? HBS Note 294107

American Barrick Resources Corp: Managing Gold Price Risk, HBS 9-293-128

Swaps background: A Note on Currency Swaps, HBS 9-292-043

Walt Disney Company's Yen Financing, HBS 9-287-058

How Financial Engineering Can Advance Corporate Strategy, HBS 96112

Long-Term Capital Management (A & C), HBS 9-200-007 & 9-200-009

These materials are available from Harvard Business Online www.hbsp.harvard.edu. Each case costs around \$4 USD, so the eight notes and cases should run about \$32 USD.

Other course materials will be posted on the course website as they become available. The following is a list of useful reference books (in decreasing order of relevance to the course).

2. Additional References and Background Reading

R.L. McDonald (2005), Derivatives Markets, Pearson Addison Wesley.

J.C. Hull (2000), Options, Futures and other Derivative Securities, Prentice Hall, 4th edition.

P. Jorion, Value at Risk, McGraw-Hill, 2nd edition.

S. N. Neftci (2004), Principles of Financial Engineering, Elsevier Academic Press.

Smithson, Smith, and Wilford (1995), Managing Financial Risk, Irwin.

S. Titman and M. Grinblatt (2002), Financial Markets and Corporate Strategy, McGraw-Hill, 2nd edition.

R. Brealey and S. Myers (2000), Principles of Corporate Finance, McGraw-Hill, 6th edition.

Z. Bodie, A. Kane, and A.J. Marcus (2005), Investments, McGraw Hill Irwin, 6th edition.

COURSE ACTIVITIES AND EVALUATION

Class participation	15%
Case reports (team-work)	30% (three reports)
Case presentation (team-work)	10% (one presentation)
Team peer evaluation	5%
Final exam (closed-book, crib-sheet, to be held in week 8)	40%

1. Class Participation

Class participation includes attendance, attitude, and volunteered and “cold call” responses. We may call on you regarding discussion questions, readings, and cases. It therefore behooves you to show up for class well prepared. Specifically, all reading assignments should be completed *before* the class we cover them. It is your responsibility to be active in class. Do not simply wait for to be called on; raise your hand or speak out. The points you receive for class participation will reflect the quality and quantity of your contribution. We will take attendance and penalize those without a previously-excused absence. Moreover, skipping class seriously jeopardizes your success in the course. To help us learn your names and assign proper credit for class participation, we ask that you use name tents at all times.

Late arrivals, early departures, chatter, ring tones, unwarranted laptop or PDA usage, eating, chewing, or drinking are rude and disruptive to the quality of the learning environment in the classroom. Any such behavior will be noted and count against your participation grade.

2. Cases and Teamwork

Cases are an integral part of this course. To lower the work load for everyone, we ask that you form teams to tackle the cases. To help you prepare the cases for class discussion, we require every team to turn in a report for each case. The report must summarize the central problem in the case and propose a solution. We have prepared a series of study questions for each case to aid your analysis. Additionally, we recommend you read Learning by the Case Method (HBS 9-376-241) to understand more about case pedagogy and to develop some general case-solving strategies. Each team must also present one of the cases. We discuss our specific expectations regarding the cases in a latter section of the syllabus.

Teams may have as few as four (4) members but no more than seven (7). These bounds may be adjusted depending on class enrollment. Please form your teams by the second week of class when you must identify your team members and the case you would prefer to present.

Because so much of your grade depends on teamwork, we want to encourage good team performance by asking each team member to evaluate all other team members on a variety of dimensions. To this end, the last page of this syllabus contains an evaluation form which must be completed and tendered in hardcopy format when you sit for the final exam.

3. Final exam

The exam will cover all assigned textbook and supplementary readings, problems and exercises, handouts and anything said or written in class.

The letter grade you earn depends on your performance relative to other students taking the course. The final distribution of letter grades will be set in accordance with departmental and school policy.

STUDENT TEACHER INTERACTION

Office Consultation with Professor MacKay

I hope you will drop by my office from time to time so we can chat. Otherwise, office consultations are meant to help you with material you find unclear once you have made every effort to understand it. These efforts include: preparing for class (do assigned readings and problems *before* class), attending class (no private make-up classes), participating in class (ask questions as they arise), consulting your peers (form study groups), re-reading the relevant sections, letting the matter sit for a few hours, then approaching the problem/question from another angle. Only once you have exhausted all these avenues should you consider visiting with me. For best results, have specific questions ready if and when you do decide to consult me. Aside from posted hours, I will meet with you at any other mutually convenient time. I will hold extra office hours in the days before exams.

Phone Use and Email Consultation with Professor MacKay

You may contact me by phone to set up an office meeting or occasionally to ask short questions (preferably of the yes/no variety). Email is an efficient alternative to office consultation. I will try to respond to your queries promptly. However, as in all good things, a law of decreasing returns applies: Repeated emails will lower my propensity to respond.

COURSE OUTLINE AND READING ASSIGNMENTS

Week 1 (4/11, MacKay): Overview and Review

- Stulz Chapter 1 – Introduction to Corporate Risk Management
- McDonald (chapters TBA) – Review of derivatives, pricing, and basic strategies.
- Bodnar, Marston, and Hyat (1998), *1998 Survey of Financial Risk Management by U.S. Non-Financial Firms*, George Weiss Center for International Financial Research, Wharton School, <http://finance.wharton.upenn.edu/weiss/survey98.pdf>.

Week 2 (11/11, MacKay): Risk Management and Firm Value: Theory and Evidence

Class debate: Should or shouldn't firms manage risk?

- Why Manage Risk? HBS Note 294107
- Stulz Chapter 2 – Investors and Risk Management
- Stulz Chapter 3 – Creating Value with Risk Management (Financial factors)
- Tufano (JF 1996 – Managerial factors), MacKay & Moeller (Real factors)

Week 3 (19/11, MacKay): Risk Management and Firm Value: Application

Case: American Barrick Resources Corp: Managing Gold Price Risk, HBS 9-293-128

Proxy statement of American Barrick for fiscal year ending Dec. 1992

Two team case presentations (2 x 20 minutes)

Swaps background: A Note on Currency Swaps, HBS 9-292-043

Week 4 (25/11, MacKay): Swaps and Total Risk Management: Theory

Case: Walt Disney Company's Yen Financing, HBS 9-287-058

Two team case presentations (2 x 20 minutes)

- Stulz Chapter 4 – A Firm-Wide Approach to Risk Management
- Stulz Chapter 7 – Optimal Wedges for the Real World

Week 5 (2/12, MacKay): Total Risk Management: Application

- Stulz Chapter 8 – Identifying and Managing Cash Flow Exposures

Application: Washington Controls (price and quantity risk, forecasting, *pro forma*, natural hedges, on and off-balance-sheet hedging, sensitivity analysis, Monte Carlo simulation).

Week 6 (9/12, Vinais): Corporate Finance Problems & Equity Derivatives Solutions

How Financial Engineering Can Advance Corporate Strategy, HBS 96112

Week 7 (16/12, Vinais/MacKay): Corporate Risk Management in the Real World

Case: Long-Term Capital Management (A & C), HBS 9-200-007 & 9-200-009

Two team case presentations (2 x 20 minutes)

Week 8 (23/12): Exam – room TBA

Peer Evaluation

Your Name: _____

Team No: _____

Please turn in this peer evaluation form with your final exam. This evaluation is confidential. Your personal response will not be made available to the other group or class members. Rate each person in your team (including yourself) on the indicated criteria using the following scale: 4 for excellent, 3 for very good, 2 for good, 1 for poor.

Student's First Name:							
Student's Last Name:							Yourself
<i>Criteria:</i>							
Quality of contribution							
Quantity of contribution							
Creativity							
Turn-taking (letting all participate)							
Leadership							
Effort (time contributed)							
Attitude (cooperation, dependability)							
Logistics (clerical-type duties)							
Attendance at meetings							
Preparation for meetings							
Willingness to accept & complete tasks							
Completion of task on time							
Overall rating							