



GRADUATE ACCOUNTING AND COMMERCE CENTRE

DIVISION OF ECONOMIC AND FINANCIAL STUDIES

ACCG806 — Risk Management and Derivatives

Unit Outline, Semester 2, 2008

1 Unit Description

This unit analyses current techniques for measuring and managing the financial risk faced by financial and non-financial corporations, with an emphasis on the practical use of derivative financial products such as forwards, futures, options and swaps. Major topics covered in the unit include identifying valuable hedging opportunities; derivatives valuation; risk exposure measurement; managing market, interest rate, currency and credit risk with derivatives; advanced derivatives strategies including exotics; organisational issues in risk management.

2 Unit Objectives

The objective of this unit is to equip students with the analytical knowledge and practical skills that are essential to the successful use of derivative financial products for managing the financial risks faced by corporates. It addresses the needs of end-users of derivative products, such as risk managers.

It also aims to help students develop their generic skills, such as interpersonal, communication, critical analysis, problem solving, and creative thinking skills, in the effective accomplishment of risk management tasks. Foundation skills of numeracy and information technology will also be enhanced by developing spreadsheets for risk management purposes.

3 Assumed Knowledge

This is an advanced unit of study. It is assumed that students have strong quantitative skills and have successfully completed at least one prior unit in finance.

4 Teaching Staff and Contact Details

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Consulting hours during teaching weeks will be advised during the first class.

5 Teaching Format

There are twelve teaching sessions. Each session runs for three hours including breaks and consists of a variety of interactive learning activities. These activities are a mix of verbal and written tasks that are conducted both individually and in small groups.

6 Teaching/Learning Strategy

Learning activities are designed to both equip students with necessary technical skills for effective risk management with derivatives, as well as to develop their generic skills, especially within the context of risk management. Class activities include a short interactive lecture on topic material and student presentations of responses to class discussion questions.

Students are expected to carefully read the required references prior to each seminar. Nominated students are required to lead the class discussion for their allocated question and all other students are expected to have thought about the important issues prior to the class. Readings are set out in section 10 below. Class discussion questions are contained in the lecture notes for each topic.

With regard to preparing for the final examination, students should develop their ability to understand unit concepts and how to apply them in practical situations, rather than merely being able to memorise and use formulas.

7 Textbooks and other references

The **prescribed** textbook for this unit is **René M. Stulz, Risk management & derivatives**, Thomson South-Western. Useful reference books include

- J.C. Hull, Options, futures and other derivatives, Prentice Hall
- J.C. Hull, Options, futures and other derivatives: solutions manual, Prentice Hall
- C.W. Smithson, Managing financial risk, McGraw Hill
- D.M. Chance, An introduction to derivatives & risk management, Thomson South-Western.

8 Method of Assessment

Class participation	10%
Group project	20%
Final examination	70%

To pass this unit, it is necessary to achieve a passing grade in both the final examination and the overall unit assessment.

Cheating and plagiarism carry heavy penalties and must be avoided. For more details on this issue refer <http://www.student.mq.edu.au/plagiarism/>

8.1 Class Participation

As noted earlier in section 6, students have the opportunity to present responses to class discussion questions. The class participation mark will reflect the quality of these presentations and other contributions to class discussions. Marks are also awarded for class attendance.

8.2 Group Project

Project topic:

Carefully read Atamer, Bartram and Brown, 2007, How Important is Financial Risk? Prepare a report that addresses the following issues.

1. On page 2 they state, ‘we view financial policy as transforming asset volatility into equity volatility via financial leverage.’ Explain the meaning of this statement and comment on the extent to which their view provides an adequate representation of financial policy. [20% weighting in total project mark].
2. On page 6 they state, ‘firms earn economic rents for bearing risks for which they have some operational expertise (e.g., business risks), whereas they earn no economic rents for bearing risks that can be hedged or diversified (e.g., financial risks).’ Explain the meaning of this statement and assess the basis for this assertion. [20% weight].
3. On page 4 they claim, ‘unlike many previous studies, our careful treatment of the endogeneity of financial policy reveals that Total Debt / Market Capitalization (i.e., leverage) increases total firm risk.’ What is meant by ‘endogeneity of financial policy’ and why does it matter in this type of research? How does the method of Atamer, Bartram and Brown improve on those used in previous studies? [20% weight].
4. On page 5 they conclude that ‘our results suggest that as a practical matter financial risk is unimportant for the typical US firm’. Carefully describe how their results lead them to this conclusion. Make sure that you specifically refer to the relevant evidence presented in their tables and figures. [20% weight].
5. Suggest ways of enhancing the analysis conducted by Atamer, Bartram and Brown. [20% weight].

Rules:

1. This project is to be conducted by groups no larger than four.
2. **Submit** your written report **no later than the week 10 class**.
3. The written report must not exceed ten typed, double-spaced pages. A full bibliography should be included and all source documents properly acknowledged. Submissions that merely reproduce or paraphrase large sections of source documents will receive a failing grade. Plagiarism will result in a zero mark and potential disciplinary action by the University.
4. Your written report must include a statement, signed by all members, that sets out the percentage contribution of each member. It is expected that groups will allocate tasks so that each member makes a similar level of contribution. Marks may be adjusted where unequal contributions can be proved from individual log-books or other identifiable evidence.

8.3 Final examination

A two hour final examination will be held at the usual lecture time and location in the last week of classes. It will examine all topics covered in the entire unit. The format of the final examination will be advised later. Non-programmable calculators are allowed in the final examination, provided that they are not capable of storing text. No dictionaries of any kind are permitted in the final examination.

Attendance at the examination is compulsory. If a student is unable to attend, the convenor should be advised beforehand, or, as soon as is practicable after the event. Special consideration for the final examination can be granted only in cases of unavoidable disruption to previously satisfactory work and supporting documentation is essential.

Interpreting your SNG

Students receive a standardised numerical grade (SNG), with their final exam result. To interpret this number, it should be noted that

- SNGs are not computed by simply adding up the marks given for each component of assessment, but provide a ranking of students based on marks obtained from all facets of the unit assessment
- The SNGs awarded in a particular unit are designed to indicate that the students in each performance band, from HD to PC, have satisfied the criteria for inclusion in that band and ranks them by their performance within that band
- Since the ranges of SNGs differ from band to band the relationship between raw marks and SNGs may differ from band to band even within the same unit
- The relationship between raw marks and SNGs invariably differs among units.

9 Seminar Schedule

Week	Topic
	1. Introduction to risk management and derivatives
	2. Adding value by risk management
	3. Valuing derivatives: part I
	4. Valuing derivatives: part II
	5. Measuring risk exposures
	6. Risk management with forwards and futures
	7. Risk management with options
	<i>Mid-semester recess</i>
	8. Interest rate risk and interest rate derivatives
	9. Advanced derivatives strategies
	10. Credit risk and credit derivatives
	11. Organisational issues in risk management
	12. Unit review
	13. Final examination

Seminar notes for each topic can be downloaded from the unit Blackboard site.

10 Readings and Assignment Questions

You are strongly encouraged to use spreadsheets or other appropriate software when completing the quantitative parts of assignment questions. Suggested solutions to the assigned Questions and Exercises from the text can be downloaded from the unit Blackboard site. Make sure that you attempt the questions before consulting the suggested solutions!

10.1 Introduction to risk management and derivatives

Readings:

- Stulz, Chapter 1
- Stulz, Chapter 2, Sections 2.1 and 2.2
- Stulz, Chapter 10, Section 10.2

Assignment Questions:

Stulz, Chapter 2, Questions and Exercises 1–5

10.2 Adding value by risk management

Readings:

- Stulz, Chapter 2, Sections 2.3
- Stulz, Chapter 3

Assignment Questions:

1. Stulz, Chapter 2, Questions and Exercises 6–9
2. Stulz, Chapter 3, Review Questions 1, 2, 5–7

10.3 Valuing derivatives: part I

Readings:

- Stulz, Chapter 5
- Stulz, Chapter 10, Section 10.3

Assignment Questions:

1. Stulz, Chapter 5, Questions and Exercises 1–3, 7–9
2. Stulz, Chapter 10, Questions and Exercises 7, 8 and 10

10.4 Valuing derivatives: part II

Readings:

- Stulz, Chapter 11, Section 11.1–11.3
- Stulz, Chapter 12

Assignment Questions:

1. Stulz, Chapter 11, Questions and Exercises 1–6
2. Stulz, Chapter 12, Questions and Exercises 1–7

10.5 Measuring risk exposures

Readings:

- Stulz, Chapters 4 and 8
- Stulz, Chapter 13, Section 13.1 and 13.2

Assignment Questions:

1. Stulz, Chapter 4, Questions and Exercises 4–8
2. Stulz, Chapter 8, Questions and Exercises 4, 5, 8–10
3. Stulz, Chapter 13, Questions and Exercises 1–7

10.6 Risk management with forwards and futures

Readings:

- Stulz, Chapters 6 and 7

Assignment Questions:

1. Stulz, Chapter 6, Questions and Exercises 1, 2, 6–9, 11
2. Stulz, Chapter 7, Questions and Exercises 1–4, 6 and 9

10.7 Risk management with options

Readings:

- Stulz, Chapter 10, Section 10.1
- Stulz, Chapter 11, Section 11.4
- Stulz, Chapter 13, Section 13.3 and 13.4

Assignment Questions:

1. Stulz, Chapter 10, Questions and Exercises 1–4
2. Stulz, Chapter 11, Questions and Exercises 7, 8 and 10
3. Stulz, Chapter 13, Questions and Exercises 10

10.8 Interest rate risk and interest rate derivatives

Readings:

- Stulz, Chapters 9 and 14

Assignment Questions:

1. Stulz, Chapter 9, Questions and Exercises 1, 2, 5–9
2. Stulz, Chapter 14, Questions and Exercises 3–5, 8 and 10

10.9 Advanced derivatives strategies

Readings:

- Stulz, Chapters 15, 16 and 17

Assignment Questions:

1. Stulz, Chapter 15, Questions and Exercises 1, 2, 6–9
2. Stulz, Chapter 16, Questions and Exercises 1–4, 6–8
3. Stulz, Chapter 17, Questions and Exercises 1–5, 7 and 8

10.10 Credit risk and credit derivatives

Readings:

- Stulz, Chapter 18

Assignment Questions:

Stulz, Chapter 18, Questions and Exercises 2–5, 8–10. Attempt the *extra credit* parts in these questions.

10.11 Organisational issues in risk management

Readings:

- Stulz, Chapter 19
- Stulz, Epilogue

Assignment Questions:

Stulz, Chapter 19, Questions and Exercises 1–5, 9 and 10

11 Unit Web Site Materials

The Blackboard site for this unit [accessible from <http://learn.mq.edu.au>] provides the following resources.

1. Learning Materials section
 - (a) Lecture notes. Click Print slides for printing black and white versions with four slides to a sheet. Clicking on Slides takes you to coloured slides that you may prefer when online.
 - (b) Suggested solutions to the assignment questions.
2. Online discussions with other class members. Please note that the unit instructor will not participate in these discussions. As this offering is in classroom mode, if you wish to discuss any unit matters with your instructor, please do so in class time or during his consulting hours.