AFIN806
Risk Management and Derivatives
S1 Day 2016
Dept of Applied Finance and Actuarial Studies

Contents

General Information 2
Learning Outcomes 2
General Assessment Information 3
Assessment Tasks 3
Delivery and Resources 4
Unit Schedule 5
Learning and Teaching Activities 6
Policies and Procedures 6
Graduate Capabilities 7
Changes from Previous Offering 9
Research & Practice, Global & Sustainability 9

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General Information

Unit convenor and teaching staff
Unit Convenor
Lorenzo Casavecchia
lorenzo.casavecchia@mq.edu.au
E4A517
To be advised

Angela Chow
angela.chow@mq.edu.au

Credit points
4

Prerequisites
ACST603 or AFIN858

Corequisites

Co-badged status

Unit description
This unit examines current techniques for measuring and managing the financial risk faced by corporate and financial institutions, with an emphasis on the practical use of derivative financial products such as forwards, futures, swaps and options to manage risk.

Important Academic Dates
Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes
On successful completion of this unit, you will be able to:

- Recognise the role of derivatives in financial risk management
- Know the fundamental principles of derivatives valuation
- Understand the value of effective risk management and the dangers of poor risk management
- Evaluate alternative risk management strategy and tactics
- Implement appropriate risk management solutions for corporate risk scenarios
General Assessment Information

It is the responsibility of students to view their marks for each within session assessment on iLearn within 20 days of posting. If there are any discrepancies, students must contact the unit convenor immediately. Failure to do so will mean that queries received after the release of final results regarding assessment tasks (not including the final exam mark) will not be addressed.

Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Test</td>
<td>20%</td>
<td>Week 6</td>
</tr>
<tr>
<td>Case Study</td>
<td>20%</td>
<td>Week 12</td>
</tr>
<tr>
<td>Final Examination</td>
<td>60%</td>
<td>Examination period</td>
</tr>
</tbody>
</table>

Class Test

Due: **Week 6**
Weighting: **20%**

Description 60 minute written test. Submission Activity completed in class. Absence from the class test is not permitted, except for cases in which an application for special consideration is made and approved.

On successful completion you will be able to:
- Recognise the role of derivatives in financial risk management
- Know the fundamental principles of derivatives valuation

Case Study

Due: **Week 12**
Weighting: **20%**

Description Students conduct a case study on a topical issue in risk management and derivatives.

Group work

This task is to be conducted by groups consisting of between 3 and 5 members.

Submission Hand case study report to instructor during class in week 12.

No extensions will be granted. There will be a deduction of 10% of the total available marks made from the total awarded mark for each 24 hour period or part thereof that the submission is late (for example, 25 hours late in submission – 20% penalty). This penalty does not apply for cases in which an application for disruption of studies is made and approved. No submission will
On successful completion you will be able to:

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Final Examination

Due: Examination period
Weighting: 60%

Description 2 hour exam with 10 minutes reading time.

You are permitted ONE A4 page of paper containing reference material printed on both sides. The material may be handwritten or typed. The page will not be returned at the end of the final examination.

To be eligible to pass this unit, a pass is required in the final examination.

On successful completion you will be able to:

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- Implement appropriate risk management solutions for corporate risk scenarios

Delivery and Resources

Classes

- Classes comprise a weekly, three-hour seminar. Students should attend all classes, both for learning and assessment purposes.
- The timetable for classes can be found on the University web site at: http://www.timetables.mq.edu.au/

Required and Recommended Texts and/or Materials

- There is no required textbook.
- The recommended text is Hull, Treepongkaruna, Heaney, Pitt and Colwell,
Fundamentals of Futures and Options Markets: Australasian edition. However, almost any textbook on derivatives should be suitable for our purposes.

- Additional references may be added during the semester. Details of these will be provided at the unit web page.

**Unit Web Page**

- Course material is available on the learning management system (iLearn)
- Students should consult the web page frequently. Learning, teaching and other reference materials are posted to this site throughout the semester.

**Technology Used and Required**

- Access to the unit Web Site.
- Word processing software for report writing.
- Spreadsheets for applying quantitative models studied in the unit.

## Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Managing risk with forwards/futures and swaps</td>
</tr>
<tr>
<td>2</td>
<td>Managing risk with options</td>
</tr>
<tr>
<td>3</td>
<td>Pricing forwards/futures and swaps</td>
</tr>
<tr>
<td>4</td>
<td>Pricing options: binomial model</td>
</tr>
<tr>
<td>5</td>
<td>Pricing options: Black-Scholes-Merton model</td>
</tr>
<tr>
<td>6</td>
<td>Class test</td>
</tr>
<tr>
<td></td>
<td><em>Mid-session break</em></td>
</tr>
<tr>
<td>7</td>
<td>Measuring risk</td>
</tr>
<tr>
<td>8</td>
<td>Managing interest rate and credit risk</td>
</tr>
<tr>
<td>9</td>
<td>Major derivatives losses</td>
</tr>
<tr>
<td>10</td>
<td>Model risk</td>
</tr>
</tbody>
</table>
Learning and Teaching Activities

Learning and teaching activities

Learning and teaching 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 corporate risk management. This unit is taught in a seminar style. Each session runs for three hours including breaks and consists of a variety of interactive learning activities. Class activities include a short interactive lecture on topic material and discussion of key issues. 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.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:


In addition, a number of other policies can be found in the Learning and Teaching Category of Policy Central.

**Student Code of Conduct**

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: [https://students.mq.edu.au/support/student_conduct/](https://students.mq.edu.au/support/student_conduct/)
Results

Results shown in iLearn, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au.

Supplementary Exams

Further information regarding supplementary exams, including dates, is available here http://www.businessandeconomics.mq.edu.au/current_students/undergraduate/how_do_i/special_consideration

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/

When using the University’s IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen
This graduate capability is supported by:

**Learning outcomes**

- Recognise the role of derivatives in financial risk management
- Know the fundamental principles of derivatives valuation
- Understand the value of effective risk management and the dangers of poor risk management
- Evaluate alternative risk management strategy and tactics
- Implement appropriate risk management solutions for corporate risk scenarios

**Assessment tasks**

- Class Test
- Case Study
- Final Examination

**PG - Critical, Analytical and Integrative Thinking**

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

**Learning outcomes**

- Recognise the role of derivatives in financial risk management
- Know the fundamental principles of derivatives valuation
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- Implement appropriate risk management solutions for corporate risk scenarios

**Assessment tasks**

- Class Test
- Case Study
- Final Examination

**PG - Research and Problem Solving Capability**

Our postgraduates will be capable of systematic enquiry; able to use research skills to create
new knowledge that can be applied to real world issues, or contribute to a field of study or
practice to enhance society. They will be capable of creative questioning, problem finding and
problem solving.

This graduate capability is supported by:

**Learning outcomes**

- Know the fundamental principles of derivatives valuation
- Understand the value of effective risk management and the dangers of poor risk
  management
- Evaluate alternative risk management strategy and tactics
- Implement appropriate risk management solutions for corporate risk scenarios

**Assessment tasks**

- Case Study
- Final Examination

**Changes from Previous Offering**

Some revision of weekly topics.

**Research & Practice, Global & Sustainability**

Research & Practice: This unit draws on seminal and latest research in derivatives and financial
risk management from external sources. Unit concepts are based on theoretical research and
practical implications are developed from theoretical and empirical research. This unit gives you
practice in applying research findings in your assessment tasks.

Global & Sustainability: Firms operate in global market places. Financial risk management and
other corporate decisions take place in the context of globalisation and are subject to
sustainability constraints.

In preparing their case study, students are encouraged to use relevant research and to consider
the practical, global and sustainability implications for firm choices in the context of risk
management. The class test and final examination will also partly test students' understanding of
these issues.