



AFIN806

Risk Management and Derivatives

S1 Day 2018

Archive (Pre-2019) - Dept of Applied Finance and Actuarial Studies

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General Information

Unit convenor and teaching staff

Professor of Finance

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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 strategies and tactics

Encourage peer learning, peer support and collaborative work in implementing

appropriate risk management solutions for corporate risk scenarios

General Assessment Information

- To provide **early feedback**, you are to complete a self-assessment online quiz to be released in Week 4. Use this quiz as an indicator of whether you are progressing satisfactorily in the unit. If you are having difficulties, please see the Unit Convenor and consider withdrawing before the census date. Your score on the quiz will not count towards your grade.
- It is the responsibility of students to view their marks for each within session assessment on iLearn within 20 working 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 marks (not including the final exam mark) will not be addressed.
- Assessment criteria for all assessment tasks will be provided on the unit iLearn site.

Assessment Tasks

Name	Weighting	Hurdle	Due
Class test	30%	No	Week 8
Assignment	30%	No	Week 10
Final Project	40%	No	Examination period

Class test

Due: **Week 8**

Weighting: **30%**

- Students will sit an invigilated in-class test. Further details will be provided on the unit iLearn website
- No extensions will be granted. Students who do not sit the test will be awarded a mark of 0 for the task, 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
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Assignment

Due: **Week 10**

Weighting: **30%**

- Students complete a major assignment on a topical issue in financial risk management chosen by the convenor. Further details will be provided on the unit iLearn website.
- The project is a group task with 50% of the marks allocated to individual performance.
- The project must be submitted via the unit iLearn website.
- 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 special consideration is made and approved. No submission will be accepted after solutions have been posted.

On successful completion you will be able to:

- Recognise the role of derivatives in financial risk management
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Final Project

Due: **Examination period**

Weighting: **40%**

- Students complete a major project and prepare an extensive report on a problem in risk management using derivatives. The project will be chosen by the convenor. Further details will be provided on the unit iLearn website.
- The project is an individual task.
- The project must be submitted via the unit iLearn website.

- 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 special consideration is made and approved. No submission will be accepted after solutions have been posted.

On successful completion you will be able to:

- Recognise the role of derivatives in financial risk management
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Delivery and Resources

Classes

- Classes comprise a weekly, three-hour seminar, typically structured as a two-hour lecture plus one hour for exercise questions. 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

- The required textbook is 'Options, Futures, and other Derivatives' (Global Edition) by John C. Hull, 9th Edition, Pearson.
- 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

Date (Thursday)	Week	Topic
01.03.18	1	Introduction / Futures Markets / Hedging Strategies
08.03.18	2	Interest Rates
15.03.18	3	Pricing forwards, futures and swaps
22.03.18	4	Pricing options: Binomial Trees
29.03.18	5	Pricing options: Black-Scholes-Merton model
05.04.18	6	The Greek Letters / Volatility Smiles
12.04.18	7	Value at Risk
		Mid-semester break from Monday 16.04.18 to Friday 30.04.18
03.05.18	8	Class test (30%)
10.05.18	9	Volatilities, correlations, and dependence
17.05.18	10	Credit Risk
24.05.18	11	Model Risk
31.05.18	12	Energy and commodity derivatives
07.06.18	13	Ethical issues in risk management

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)

- [Fitness to Practice Procedure](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#) (**Note:** *The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.*)

Undergraduate students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/student-policy-gateway) (<https://students.mq.edu.au/support/study/student-policy-gateway>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central](http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/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/study/getting-started/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

Information regarding supplementary exams, including dates, is available at: 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 - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes

- Recognise the role of derivatives in financial risk management
- Understand the value of effective risk management and the dangers of poor risk management
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Assessment tasks

- Class test
- Assignment
- Final Project

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 fields.

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
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Assessment tasks

- Class test
- Assignment
- Final Project

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
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