



# AFIN8006

## Risk Management and Derivatives

Session 2, Special circumstance 2020

*Department of Applied Finance*

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#### Disclaimer

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#### Notice

As part of [Phase 3 of our return to campus plan](#), most units will now run tutorials, seminars and other small group learning activities on campus for the second half-year, while keeping an online version available for those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face and online activities for your unit, please go to [timetable viewer](#). To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

## General Information

Unit convenor and teaching staff Unit Convenor Wei Cui <a href="mailto:wei.cui@mq.edu.au">wei.cui@mq.edu.au</a> Contact via Email
Credit points 10
Prerequisites (Admission to MActPrac or MFin) or (ACST603 or ACST6003 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:

**ULO1:** Recognise the role of derivatives in financial risk management.

**ULO2:** Discover the fundamental principles of derivatives valuation and its application in managing risks.

**ULO3:** Evaluate alternative risk management strategies and tactics.

**ULO4:** Encourage peer learning, peer support and collaborative work in implementing appropriate risk management solutions for corporate risk scenarios.

## General Assessment Information

Assessment criteria for all assessment tasks will be provided on the unit iLearn site.

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.

### Late submissions and extensions

Tasks 10% or less – No extensions will be granted. Students who have not submitted the task prior to the deadline will be awarded a mark of 0 for the task, except for cases in which an application for special consideration is made and approved.

Tasks above 10% - 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.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Mid Session Test</u>	20%	No	Week 8
<u>Assignment</u>	20%	No	Week 10
<u>Final Examination</u>	60%	No	University Exam Period

### Mid Session Test

Assessment Type <sup>1</sup>: Quiz/Test

Indicative Time on Task <sup>2</sup>: 20 hours

Due: **Week 8**

Weighting: **20%**

A 1.5 hour open book online test will be held during the session.

On successful completion you will be able to:

- Recognise the role of derivatives in financial risk management.
- Discover the fundamental principles of derivatives valuation and its application in managing risks.

### Assignment

Assessment Type <sup>1</sup>: Report

Indicative Time on Task <sup>2</sup>: 20 hours

Due: **Week 10**

Weighting: **20%**

Students will work in groups to conduct quantitative and qualitative analysis on a topical issue in financial risk management.

On successful completion you will be able to:

- Recognise the role of derivatives in financial risk management.
- Discover the fundamental principles of derivatives valuation and its application in managing risks.
- 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.

## Final Examination

Assessment Type <sup>1</sup>: Examination

Indicative Time on Task <sup>2</sup>: 20 hours

Due: **University Exam Period**

Weighting: **60%**

A 2.5 hour online open book examination will be held during University Examination Period.

On successful completion you will be able to:

- Recognise the role of derivatives in financial risk management.
- Discover the fundamental principles of derivatives valuation and its application in managing risks.
- Evaluate alternative risk management strategies and tactics.

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<sup>1</sup> If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the [Writing Centre](#) for academic skills support.

<sup>2</sup> Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

## Delivery and Resources

	'Option, Futures, and Other Derivatives' (Global Edition) by John C. Hull, 10th Edition, Pearson.
	<p>Course material is available on the learning management system (iLearn)</p> <p>Students should consult the web page frequently. Learning, teaching and other reference materials are posted to this site throughout the session.</p>
	<ul style="list-style-type: none"> <li>• Access to the unit Web Site.</li> <li>• Word processing software for report writing.</li> <li>• Spreadsheets for applying quantitative models studied in the unit.</li> </ul>
	<p><b>Classes</b></p> <p>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.</p> <p>The timetable for classes can be found on the University website at: <a href="https://timetables.mq.edu.au/2020/">https://timetables.mq.edu.au/2020/</a></p>
	Additional references may be added during the session. Details of these will be provided at the unit web page.

## Unit Schedule

Week	Textbook Chapters	Topic
1	1,2,3	Introduction to futures, options and hedging strategies
2	5	Forwards and futures pricing and hedging
3	7	Swaps pricing and construction
4	13	Options pricing using binomial trees
5	15	Options pricing using the Black-Scholes-Merton model
6	19,20	Greek letters and volatility smiles
7	22	Value at risk
		<i>Mid-semester break</i>
8		<i>Mid-session Test</i>
9	23	Volatilities, correlations, and dependence
10	24	Credit risk
11	34	Energy and commodity derivatives
12	36	Ethical issues in risk management
13		Revision

## 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.*)

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](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>).

## 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 published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) 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](https://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## 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](https://mq.edu.au/learningskills)) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- [Getting help with your assignment](#)
- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

## 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](http://ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@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/](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.