



AFIN3029

Derivative Instruments

Session 1, Weekday attendance, North Ryde 2020

Department of Applied Finance

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General Information

Unit convenor and teaching staff

Unit Convenor

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Credit points

10

Prerequisites

20cp at 2000 level including (AFIN252 or AFIN270 or AFIN2070 or STAT272 or STAT2372)

Corequisites

Co-badged status

Unit description

This unit explores the characteristics and pricing of derivatives. The importance of the principles of hedging and arbitrage in derivative pricing, is considered. Derivatives investigated include forwards, futures, options and various structured products. In particular, the unit covers non-standard securities and numerical methods.

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: Examine the concepts of option pricing theory and the role of derivatives.

ULO3: Develop skills to price options and other derivatives.

ULO2: Apply financial derivatives such as forward/futures and options to solve quantitative problems.

ULO4: Examine the principles of hedging, arbitrage theory and structured products.

Assessment Tasks

Coronavirus (COVID-19) Update

Assessment details are no longer provided here as a result of changes due to the Coronavirus (COVID-19) pandemic.

Students should consult [iLearn](#) for revised unit information.

[Find out more about the Coronavirus \(COVID-19\) and potential impacts on staff and students](#)

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 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.

Mid-Session Test

The mid-session test is based on topics covered during lecture weeks 1 to 6 inclusive and is composed of short-answer/short-response questions including calculations. No dictionaries of any kind are allowed in the examination. Non-programmable calculators are allowed, provided that they are not capable of storing text.

You are NOT permitted to bring in a reference sheet, however, during the exam you will be provided with a formula sheet (attached to the back of your exam paper). It will contain useful formulas that have been encountered during the course, however it is the student's responsibility to identify the correct formula to be used for any particular question within the paper.

Final Examination Conditions

The final exam is based on topics covered during lecture weeks 1 to 13, inclusive and is composed of short-answer/short-response questions including calculations. No dictionaries of any kind are allowed in the final examination. Non-programmable calculators are allowed, provided that they are not capable of storing text.

You are NOT permitted to bring in a reference sheet, however, during the exam you will be provided with a formula sheet (attached to the back of your exam paper). It will contain useful formulas that have been encountered during the course, however it is the student's responsibility to identify the correct formula to be used for any particular question within the paper.

Special Consideration

Where a Special Consideration application is approved, the student may be offered an alternative assessment or may receive a mark based on the percentage mark achieved by the student in one or more other assessment tasks, at the Unit Convenor's discretion.

Delivery and Resources

Coronavirus (COVID-19) Update

Any references to on-campus delivery below may no longer be relevant due to COVID-19.

Please check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

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|---|---|
| Required Text: | <ul style="list-style-type: none"> The required textbook is 'Fundamentals of Futures and Options Markets', John C. Hull, Sirimon Treepongkaruna, Richard Heaney, David Pitt and David Colwell, Pearson, 2014 This is available for purchase from the Macquarie University Co-op Bookshop, and a copy will be available in the closed reserve section of the Macquarie Library. |
| Unit Web Page: | <ul style="list-style-type: none"> The web page for this unit can be found at http://ilearn.mq.edu.au It is the responsibility of students to visit the unit regularly. Course material is available on the learning management system (iLearn). Lecture notes, tutorial solutions, unit announcements, and other reference materials will be posed to this site throughout the semester |
| Delivery Format and Other Details: | <p>Classes</p> <ul style="list-style-type: none"> The weekly three hour class for this unit consists of a two hour lecture and a one hour tutorial. The timetable for classes can be found on the University web site at: https://timetables.mq.edu.au/ |
| Other Course Materials: | <p>Prizes</p> <p>Prizes for this unit (see) http://www.buisnessandconomics.mq.edu.au/undergraduate_degrees/prizes_scholarships</p> |

Unit Schedule

Coronavirus (COVID-19) Update

The unit schedule/topics and any references to on-campus delivery below may no longer be relevant due to COVID-19. Please consult [iLearn](#) for latest details, and check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

| Lecture Week | Lecture Topic |
|--------------|---|
| 1 | Introduction to Derivatives and Mechanics of Futures Market |
| 2 | Hedging Strategies using Futures |

| | |
|----|---|
| 3 | Interest rates |
| 4 | Determination of Forward and Futures Prices |
| 5 | Swaps and Ethics |
| 6 | Mechanics of Option Markets and Properties of Stock Options |
| 7 | Trading Strategies Involving Options |
| | BREAK |
| 8 | Introduction to Binomial Trees |
| 9 | CLASS TEST |
| 10 | Valuing Stock Options: The Black Scholes Model |
| 11 | Options on Stock Indices and Currencies and Futures Options |
| 12 | Greek Letters |
| 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](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 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 or if you are a Global MBA student contact globalmba.support@mq.edu.au

Supplementary Examinations

Information regarding supplementary exams, including dates, is available at:
http://www.businessandeconomics.mq.edu.au/current_students/undergraduate/how_do_i_disruption_to_studies

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 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

If you are a Global MBA student contact 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/.

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.

Changes since First Published

| Date | Description |
|------------|------------------------------|
| 08/02/2020 | Changed order of assessments |