



AFIN328

Financial Risk Management

S1 Day 2019

Department of Applied Finance

Contents

<u>General Information</u>	2
<u>Learning Outcomes</u>	2
<u>General Assessment Information</u>	3
<u>Assessment Tasks</u>	3
<u>Delivery and Resources</u>	6
<u>Unit Schedule</u>	6
<u>Policies and Procedures</u>	7
<u>Graduate Capabilities</u>	9

Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

General Information

Unit convenor and teaching staff

Unit Convenor, Lecturer

Lei Shi

l.shi@mq.edu.au

Contact via Email

4ER Room 737

Wednesday 2-4pm

Credit points

3

Prerequisites

6cp at 200 level including (AFIN252 or (AFIN250 and (AFIN270 or STAT272)))

Corequisites

Co-badged status

Unit description

The aim of this unit is to prepare students for analytical duties a graduate is expected to carry out in a financial institution, or for research for a higher degree. On completing the unit, successful students also attain practical knowledge of how to apply and evaluate the quantitative methods covered in the unit in analysing and managing portfolios as well as the risk arising from various financial investments. In particular, students are expected to be able to: examine and find optimal investments strategies with respect to risk and return; attain an excellent knowledge of the role and characteristics of international financial markets and institutions; understand the pricing of various financial products and how they can be used for hedging; evaluate econometric models for financial variables; and acquire an extensive knowledge on the major approaches to managing market, credit and operational risks. By undertaking this unit, students have an opportunity to consolidate and extend the knowledge they attained in first and second year finance units. Students are introduced to advanced techniques in financial markets and risk management practices with plenty of opportunities to apply them to real-world data through several tutorial tasks and a written assignment.

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:

Develop coherent theoretical and technical knowledge in the discipline and practice of financial risk management

Acquire well-developed cognitive, technical and communication skills to select and apply methods and technologies to analyse, generate and transmit solutions to risk problems in financial institutions

Apply knowledge and skills to demonstrate well-developed judgement of knowledge and responsibility to provide specialist advice in situations of financial risk

Evaluate econometric models for financial variables, for example with respect to their volatility, dependence structure and time series properties.

General Assessment Information

- To provide **early feedback**, you are to complete a self-assessment online quiz to be released in Week 3. 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.
- 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.

Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Early Diagnostic Quiz</u>	0%	No	Week 4
<u>Class Test</u>	30%	No	Week 8
<u>Assignment</u>	10%	No	Week 10
<u>Final Examination</u>	60%	No	University exam period

Early Diagnostic Quiz

Due: **Week 4**

Weighting: **0%**

Task Description:

Please use the 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 submission date in Week 4.

Type of Collaboration: Individual **Submission:** via iLearn **Format:** Online Multiple Choice

Length: 1 hour **Inherent Task Requirements:** Refer to iLearn **Late Submission:** 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.

On successful completion you will be able to:

- Develop coherent theoretical and technical knowledge in the discipline and practice of financial risk management

Class Test

Due: **Week 8**

Weighting: **30%**

Task Description: The class test will cover topics 1-6. Further details will be provided on the unit iLearn website. **Type of Collaboration:** Individual **Submission:** Invigilated test on Tuesday 30th April **Format:** Multiple Choice **Length:** 1.5 hours **Inherent Task Requirements:** Refer to iLearn **Late Submission:** 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.

On successful completion you will be able to:

- Develop coherent theoretical and technical knowledge in the discipline and practice of financial risk management
- Acquire well-developed cognitive, technical and communication skills to select and apply methods and technologies to analyse, generate and transmit solutions to risk problems in financial institutions
- Apply knowledge and skills to demonstrate well-developed judgement of knowledge and responsibility to provide specialist advice in situations of financial risk

Assignment

Due: **Week 10**

Weighting: **10%**

Task Description: The assignment is to be completed individually. Details of the assignment will be announced on the iLearn website. **Type of Collaboration:** Individual **Submission:** via

iLearn **Format:** Excel-based computations and written responses **Length:** Not applicable

Inherent Task Requirements: Refer to iLearn **Late Submission:** 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.

On successful completion you will be able to:

- Develop coherent theoretical and technical knowledge in the discipline and practice of financial risk management
- Acquire well-developed cognitive, technical and communication skills to select and apply methods and technologies to analyse, generate and transmit solutions to risk problems in financial institutions
- Apply knowledge and skills to demonstrate well-developed judgement of knowledge and responsibility to provide specialist advice in situations of financial risk
- Evaluate econometric models for financial variables, for example with respect to their volatility, dependence structure and time series properties.

Final Examination

Due: **University exam period**

Weighting: **60%**

Task Description:

The exam will cover all topics taught across the entire unit. Further details will be provided on the unit iLearn website.

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 to you at the end of the final examination.

Non-programmable calculators without text retrieval capacity are allowed.

Type of Collaboration: Individual **Submission:** Invigilated test **Format:** Short Answer

Questions (theory and calculations) **Length:** 2.5 hours with 10 minutes reading time **Inherent**

Task Requirements: Refer to iLearn **Late Submission:** 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

On successful completion you will be able to:

- Develop coherent theoretical and technical knowledge in the discipline and practice of financial risk management
- Acquire well-developed cognitive, technical and communication skills to select and apply methods and technologies to analyse, generate and transmit solutions to risk problems in financial institutions
- Apply knowledge and skills to demonstrate well-developed judgement of knowledge and

responsibility to provide specialist advice in situations of financial risk

- Evaluate econometric models for financial variables, for example with respect to their volatility, dependence structure and time series properties.

Delivery and Resources

Required Text:	Hull, J. (2018) Risk Management and Financial Institutions, 5th Edition, Wiley. This book can be purchased from the Macquarie University Co-op Bookshop. We may supplement the text with readings from journals and other textbooks as required.
Unit Web Page:	
Technology Used and Required:	<ul style="list-style-type: none"> • Internet access • Access to iLearn • Non-programmable financial or scientific calculator • Computer with Microsoft Excel • RMFI software available from textbook author's web site.
Delivery Format and Other Details:	<p>Classes</p> <ul style="list-style-type: none"> • Classes in this unit are composed of a two-hour lecture, and a one-hour tutorial. Lectures commence in Week 1 and tutorials commence in Week 2. Tutorials lag the lectures. For example, the tutorial in Week 2 will cover the questions assigned from the lecture in Week 1. • Public Holidays and Make-up Lessons - If any scheduled class falls on a public holiday a make-up lesson may be scheduled on an alternate day, usually on a Saturday or a weekday at a time when students do not have other classes scheduled <p>Timetables</p> <p>All students are required to attend their timetabled classes. The timetable for classes can be found on the University web site https://www.timetables.mq.edu.au/2019/</p>
Recommended Readings:	
Other Course Materials:	

Unit Schedule

Week	Textbook chapters	Topic
1	1-6	Introduction
2	7-9	Managing Market and Interest Rate Risk
3	10, 11	Volatility, Correlation and Copulas
4	12, 13	Value-at-Risk, Expected Shortfall and Historic Simulation
5	13, 14	Model-building Approach to Value-at-Risk and Expected Shortfall
6	15-18	Regulation

7	17, 19	Credit Risk
		<i>Mid session break</i>
8		Class Test
9	20, 21	CVA, DVA and Credit VaR
10	22, 23	Scenario Analysis, Stress Testing and Operational Risk
11	24, 25	Liquidity and Model Risk
12	26-29	Economic Capital, Enterprise Risk Management, Financial Innovation and Risk Management Mistakes to Avoid
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.*)

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](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 or if you are a Global MBA student contact globalmba.support@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/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 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

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.

Graduate Capabilities

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Develop coherent theoretical and technical knowledge in the discipline and practice of financial risk management
- Acquire well-developed cognitive, technical and communication skills to select and apply methods and technologies to analyse, generate and transmit solutions to risk problems in financial institutions
- Apply knowledge and skills to demonstrate well-developed judgement of knowledge and responsibility to provide specialist advice in situations of financial risk
- Evaluate econometric models for financial variables, for example with respect to their volatility, dependence structure and time series properties.

Assessment tasks

- Class Test
- Assignment
- Final Examination

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Develop coherent theoretical and technical knowledge in the discipline and practice of financial risk management
- Acquire well-developed cognitive, technical and communication skills to select and apply methods and technologies to analyse, generate and transmit solutions to risk problems in financial institutions
- Apply knowledge and skills to demonstrate well-developed judgement of knowledge and responsibility to provide specialist advice in situations of financial risk
- Evaluate econometric models for financial variables, for example with respect to their volatility, dependence structure and time series properties.

Assessment tasks

- Early Diagnostic Quiz
- Class Test
- Assignment
- Final Examination

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Develop coherent theoretical and technical knowledge in the discipline and practice of financial risk management
- Acquire well-developed cognitive, technical and communication skills to select and apply methods and technologies to analyse, generate and transmit solutions to risk problems in financial institutions
- Apply knowledge and skills to demonstrate well-developed judgement of knowledge and responsibility to provide specialist advice in situations of financial risk
- Evaluate econometric models for financial variables, for example with respect to their volatility, dependence structure and time series properties.

Assessment tasks

- Class Test

- Assignment
- Final Examination

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Develop coherent theoretical and technical knowledge in the discipline and practice of financial risk management
- Acquire well-developed cognitive, technical and communication skills to select and apply methods and technologies to analyse, generate and transmit solutions to risk problems in financial institutions
- Apply knowledge and skills to demonstrate well-developed judgement of knowledge and responsibility to provide specialist advice in situations of financial risk
- Evaluate econometric models for financial variables, for example with respect to their volatility, dependence structure and time series properties.

Assessment tasks

- Class Test
- Assignment
- Final Examination