

# **AFIN3028**

# **Financial Risk Management**

Session 2, In person-scheduled-weekday, North Ryde 2022

Department of Applied Finance

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#### Disclaimer

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#### **General Information**

Unit convenor and teaching staff Lecturer, Unit Convenor Lei Shi I.shi@mq.edu.au Contact via I.shi@mq.edu.au 4ER 517 Refer to iLearn

Kai Li kai.li@mq.edu.au

Credit points 10

Prerequisites (AFIN252 or AFIN250 or AFIN2050) and (AFIN270 or AFIN2070 or STAT272 or STAT2372)

Corequisites

Co-badged status

Unit description

This unit examines optimal investments strategies with respect to risk and return; the role and characteristics of international financial markets and institutions; the pricing of various financial products and how they can be used for hedging. It builds econometric models based on financial variables and how these are utilised in managing market, credit and operational risks. Students are also introduced to advanced techniques in financial markets and risk management practices.

#### Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <a href="https://www.mq.edu.au/study/calendar-of-dates">https://www.mq.edu.au/study/calendar-of-dates</a>

## **Learning Outcomes**

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

**ULO1:** Illustrate coherent theoretical and technical knowledge in the discipline and practice of financial risk management.

**ULO2:** Analyse, generate and transmit solutions to risk problems in financial institutions. **ULO3:** Formulate well-developed judgement of knowledge and responsibility to provide specialist advice in situations of financial risk.

ULO4: Evaluate econometric models for financial variables.

## **General Assessment Information**

#### Late Assessment Submission Penalty (written assessments)

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark) will be applied each day a written assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. Submission time for all written assessments is set at 11.55pm. A 1-hour grace period is provided to students who experience a technical concern.

For any late submissions of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, students need to submit an application for Special Consideration.

#### **Assessment Tasks**

Name	Weighting	Hurdle	Due
Online Quiz	0%	No	Week 4
Mid Session Test	20%	No	Week 8
Assignment	20%	No	Week 10
Final Examination	60%	No	University Examination Period

#### **Online** Quiz

Assessment Type 1: Quiz/Test Indicative Time on Task 2: 1 hours Due: **Week 4** Weighting: **0%** 

The online quiz will consist of 5 to 10 questions and will be available on iLearn. Please use the quiz result as an indicator of whether you are progressing satisfactorily in the unit.

On successful completion you will be able to:

· Illustrate coherent theoretical and technical knowledge in the discipline and practice of

financial risk management.

## Mid Session Test

Assessment Type 1: Quiz/Test Indicative Time on Task 2: 10 hours Due: **Week 8** Weighting: **20%** 

The mid session test of 90 minutes will be held to give students practice on a summative task and to provide feedback on their progress midway through the session.

On successful completion you will be able to:

- Illustrate coherent theoretical and technical knowledge in the discipline and practice of financial risk management.
- Analyse, generate and transmit solutions to risk problems in financial institutions.
- Formulate well-developed judgement of knowledge and responsibility to provide specialist advice in situations of financial risk.

#### Assignment

Assessment Type 1: Quantitative analysis task Indicative Time on Task 2: 20 hours Due: **Week 10** Weighting: **20%** 

The assignment will cover quantitative analysis of a financial scenario or problem.

On successful completion you will be able to:

- Illustrate coherent theoretical and technical knowledge in the discipline and practice of financial risk management.
- Analyse, generate and transmit solutions to risk problems in financial institutions.
- Formulate well-developed judgement of knowledge and responsibility to provide specialist advice in situations of financial risk.
- Evaluate econometric models for financial variables.

## **Final Examination**

Assessment Type 1: Examination Indicative Time on Task 2: 20 hours Due: **University Examination Period** Weighting: **60%** 

A final exam of two hours will be held during the University Examination Period.

On successful completion you will be able to:

- Illustrate coherent theoretical and technical knowledge in the discipline and practice of financial risk management.
- Analyse, generate and transmit solutions to risk problems in financial institutions.
- Formulate well-developed judgement of knowledge and responsibility to provide specialist advice in situations of financial risk.
- Evaluate econometric models for financial variables.

<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**

The content for each week will comprise of a lecture and a set of tutorial questions (Problem Sets).

#### **Lectures**

A lecture will be held each week. Lecture notes will be available on iLearn. Please refer to iLearn announcement for class delivery mode.

#### **Tutorials**

Students will need to register for a tutorial. Tutorials are considered compulsory but no marks are allocated. Tutorials will be available for most, but not all weeks of the session. In weeks where there aren't any live (on-campus or online) tutorials, a recording will be provided to cover the relevant material.

The tutorial schedule will be made available on iLearn.

Tutorial enrolment or change of tutorial can be made through *eStudent* in the first two weeks of the session. <u>No tutorial changes are allowed after Week 2</u>. Students should attend their allocated tutorial, but exceptions may occur on a one-off basis. That is, where circumstances prevent you from attending your own tutorial in a given week, you may attend an alternative tutorial if room available.

Students are expected to complete the '*Tutorial Questions*' as a self-directed study activity before attending a tutorial. Additional learning support will be available in tutor consultation times.

See timetable for classes on the University web site at: https://timetables.mq.edu.au/2022/

Hull, J. (2018) Risk management and Financial Institutions, 5th Edition, Wiley

- Internet access
- · Access to iLearn
- Non-programmable financial or scientific calculator
- Computer with Microsoft Excel
- · RMFI software available from textbook author's website

#### **Unit Schedule**

Week	Textbook chapters	Торіс
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 Historical Simulation
5	13, 14	Model-Building Approach to Value-at-Risk and Expected Shortfall
6	15-18	Regulation
7	17, 19	Credit Risk
		Mid Session Break
8		Mid Session Test

Week	Textbook chapters	Торіс
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://policie s.mq.edu.au). 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
- Assessment Procedure
- Complaints Resolution Procedure for Students and Members of the Public
- Special Consideration Policy

Students seeking more policy resources can visit <u>Student Policies</u> (<u>https://students.mq.edu.au/su</u> <u>pport/study/policies</u>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit <u>Policy Central</u> (<u>https://policies.mq.e</u> <u>du.au</u>) and use the <u>search tool</u>.

#### **Student Code of Conduct**

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/admin/other-resources/student-conduct

#### **Results**

Results published on platform other than <u>eStudent</u>, (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 <u>eStudent</u>. For more information visit <u>ask.mq.edu.au</u> or if you are a Global MBA student contact globalmba.support@mq.edu.au

#### Academic Integrity

At Macquarie, we believe <u>academic integrity</u> – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free <u>online writing an</u> d maths support, academic skills development and wellbeing consultations.

#### Student Support

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

#### **The Writing Centre**

The Writing Centre provides resources to develop your English language proficiency, academic writing, and communication skills.

- Workshops
- · Chat with a WriteWISE peer writing leader
- Access StudyWISE
- · Upload an assignment to Studiosity
- Complete the 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

Macquarie University offers a range of Student Support Services including:

- IT Support
- · Accessibility and disability support with study
- Mental health support
- <u>Safety support</u> to respond to bullying, harassment, sexual harassment and sexual assault
- · Social support including information about finances, tenancy and legal issues

#### **Student Enquiries**

Got a question? Ask us via AskMQ, or contact Service Connect.

## IT Help

For help with University computer systems and technology, visit <u>http://www.mq.edu.au/about\_us/</u>offices\_and\_units/information\_technology/help/.

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