



# ACST771

## Investment Management

S2 Day 2017

*Dept of Applied Finance and Actuarial Studies*

### Contents

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<a href="#"><u>General Information</u></a>	2
<a href="#"><u>Learning Outcomes</u></a>	3
<a href="#"><u>General Assessment Information</u></a>	4
<a href="#"><u>Assessment Tasks</u></a>	4
<a href="#"><u>Delivery and Resources</u></a>	8
<a href="#"><u>Policies and Procedures</u></a>	10
<a href="#"><u>Graduate Capabilities</u></a>	11
<a href="#"><u>Changes from Previous Offering</u></a>	15
<a href="#"><u>Research and Practice</u></a>	15

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#### **Disclaimer**

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## General Information

Unit convenor and teaching staff

Unit Administrator

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BY APPOINTMENT

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Credit points

4

Prerequisites

Admission to MRes

Corequisites

Co-badged status

### Unit description

This unit will focus on investment from an actuarial practitioner's perspective. Topics include: asset classes and their characteristics; Australian shares; overseas shares; property; fixed interest and 'other' strategic and tactical asset allocation; stochastic asset liability modelling; investment mandates; investment management styles; investment performance measurement; risk management and control; and formulation of investment policy for financial institutions, taking into account the nature of their liabilities.

This unit provide students with essential investment knowledge from an actuarial practitioner's perspective that develop the concepts and skills necessary for advanced research in actuarial studies.

## 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:

Explain the behaviour of different investment types under different economic conditions, recognising risk factors including issuer default, counterparty failure, systemic liquidity, the collapse of speculative bubbles, shocks to the system and cyclical/structural changes. Develop an understanding of the methods used for valuation of the common forms of debt, equity, property and derivative investments. In particular students should be aware of: valuation methods and principles, data requirements and sources, assumptions and limitations of the valuation models.

Develop an understanding of the major economic and financial theories relevant to investment including the capital asset pricing model, multifactor pricing models, the arbitrage pricing model, Portfolio theory, the Black Litterman approach, efficient markets hypothesis and ideas from behavioural finance.

Construct, critically evaluate and apply asset models that are appropriate to the management of liabilities. Define appropriate investment objectives based on the liability profile of a fund, specify appropriate investment constraints based on the liability profile of a fund, identify the characteristics of different types of asset models, critically evaluate the appropriateness of an asset model for a given context.

Understand the effective investment governance of an institutional investor. The role of the board, the investment committee, the internal investment team and external investment managers including setting an effective delegation matrix. Investment beliefs

and philosophy. Describe and critically evaluate approaches to asset allocation. Manage agency issues. Assess investment managers. Investment performance measurement and analysis. Investment and operational risk analysis.

Demonstrate the capacity to conduct research related to investments, in particular regarding application of valuation methods to hybrid securities, derivatives and real options.

## General Assessment Information

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.

Assignment and assessed coursework submission is through iLearn.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<u>assessed coursework</u>	8%	No	TBA
<u>Assignment</u>	16%	No	TBA
<u>case study / research report</u>	6%	No	week 11
<u>Final exam</u>	70%	No	University examination period

### assessed coursework

Due: **TBA**

Weighting: **8%**

We will have 4 assessed coursework (homework) tasks for this unit, due in weeks 3, 6, 8, and 11. These will be worth 2 marks each. The tasks will cover the course content of the weeks prior to the week in which the task is due but not covered previously: so task 1 due in week 3 will cover weeks 1 and 2, task 2 due in week 6 will cover weeks 3,4,5, etc. Typically these will have 4 short questions which will be marked on a pass / fail basis. Task 1 feedback will be provided before the census date. Students may decide whether to discontinue the unit based on this feedback. 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 disruption to studies is made and approved. These assessment tasks will be submitted electronically via iLearn. Details of the submission method will be provided on iLearn.

On successful completion you will be able to:

- Explain the behaviour of different investment types under different economic conditions, recognising risk factors including issuer default, counterparty failure, systemic liquidity, the collapse of speculative bubbles, shocks to the system and cyclical/structural changes. Develop an understanding of the methods used for valuation of the common forms of debt, equity, property and derivative investments. In particular students should be aware of: valuation methods and principles, data requirements and sources, assumptions and limitations of the valuation models.
- Develop an understanding of the major economic and financial theories relevant to investment including the capital asset pricing model, multifactor pricing models, the arbitrage pricing model, Portfolio theory, the Black Litterman approach, efficient markets hypothesis and ideas from behavioural finance.

## Assignment

Due: **TBA**

Weighting: **16%**

There will be two assignments (worth 8% each) due during the session requiring analysis and written response. The first will be made available during week 4 and due in week 7. The second will be made available during week 7 and due in week 9. These will be individual assignments, not group assignments. Note that there is a 2 week mid semester break between the end of week 7 and the start of week 8.

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 disruption to studies is made and approved. The assignment will be submitted electronically via iLearn. Details of the submission method will be provided on iLearn.

On successful completion you will be able to:

- Explain the behaviour of different investment types under different economic conditions, recognising risk factors including issuer default, counterparty failure, systemic liquidity, the collapse of speculative bubbles, shocks to the system and cyclical/structural changes. Develop an understanding of the methods used for valuation of the common forms of debt, equity, property and derivative investments. In particular students should be aware of: valuation methods and principles, data requirements and sources,

assumptions and limitations of the valuation models.

- Develop an understanding of the major economic and financial theories relevant to investment including the capital asset pricing model, multifactor pricing models, the arbitrage pricing model, Portfolio theory, the Black Litterman approach, efficient markets hypothesis and ideas from behavioural finance.
- Construct, critically evaluate and apply asset models that are appropriate to the management of liabilities. Define appropriate investment objectives based on the liability profile of a fund, specify appropriate investment constraints based on the liability profile of a fund, identify the characteristics of different types of asset models, critically evaluate the appropriateness of an asset model for a given context.
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- Demonstrate the capacity to conduct research related to investments, in particular regarding application of valuation methods to hybrid securities, derivatives and real options.

## case study / research report

Due: **week 11**

Weighting: **6%**

In this assessment task, students will be required to analyse relevant data and write a report on the valuation of hybrid securities. This assessment tasks will be submitted electronically via iLearn. Details of the submission method will be provided on iLearn. 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 disruption to studies is made and approved.

On successful completion you will be able to:

- Construct, critically evaluate and apply asset models that are appropriate to the management of liabilities. Define appropriate investment objectives based on the liability profile of a fund, specify appropriate investment constraints based on the liability profile of a fund, identify the characteristics of different types of asset models, critically evaluate the appropriateness of an asset model for a given context.
- Demonstrate the capacity to conduct research related to investments, in particular

regarding application of valuation methods to hybrid securities, derivatives and real options.

## Final exam

Due: **University examination period**

Weighting: **70%**

A 3 hour final examination for this unit will be held during the university examination period. This will be an open book examination where students may bring notes. Details of what will be permitted during the final exam will be given during the unit.

Calculators will be allowed in the final examination but a clear indication of the steps involved in every calculation must be shown. Any machines that have a text-retrieval capacity, specifically those with a full alphabet on the keyboard, are not allowed. Calculators may be checked at the commencement of the examination and the make/model may be recorded.

Dictionaries are not permitted in the final examination and no reference materials are allowed to be taken into the final examination.

No extensions will be granted. Students who have not sat the exam will be awarded a mark of 0 for the task, except for cases in which an application for disruption to studies is made and approved

On successful completion you will be able to:

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## Delivery and Resources

### Classes

Any alterations to the class times or locations will be advised in class and on the iLearn subject page.

### Campus classes

Lectures for this unit will be held on Saturdays between 9am and 12pm in building C5C Theatre 1, Macquarie University, North Ryde. The first lecture will be on 5 August 2017.

For further details relating to the timetables, please refer to the following link: <http://timetables.mq.edu.au>

### Distance education class

If you have enrolled for the distance education offering of this unit you will have access to all materials from the face to face classes (learning guides, lecture slides/overheads, handouts, exercises etc) and the same discussions and other activities via the ACST404/871 iLearn page.

The 2 hour lecture and 1 hour tutorial will be stored using *iLearn* software and will be available as a download from *iLearn*.

### Required and Recommended texts and/or materials

There are 2 textbooks for this course:

#### Recommended:

**Fitzherbert, Richard**

**Investment Principles for Actuaries**, ISBN 978 0 85813 072 2

(Referred to elsewhere in this unit guide as **FITZ**)

#### Required

**Bodie, Drew, Basu, Kane and Marcus**

Principles of Investments, ISBN 9780071012386

(Referred to elsewhere in this unit guide as **BDBKM**)

**BDBKM** is available from the Macquarie University Co-op Bookshop. Distance education students can obtain **BDBKM** from on-line booksellers such as Amazon. **FITZ** is available



from the Actuaries Institute of Australia online bookshop web address  
<http://www.actuaries.asn.au/TechnicalResources/OnlineBookshop.aspx>.

Additional readings as PDF files will also be made available via the iLearn system or will be available in the public domain or on the internet.

### **Unit web page & Technology Used and Required**

All Students

The ACST404/871 iLearn page is integral to this course unit, whether you are a distance student or in a face to face class.

iLearn can be accessed via <http://ilearn.mq.edu.au>.

We will make announcements about unit administration and assessment tasks via iLearn. These announcements will be sent as emails to your Macquarie University student email account. You should check your student email account regularly, at least every couple of days.

### **Distance Education Students**

The 2 hour lecture and 1 hour tutorial will be stored using *iLearn* software and will be available as a download from *iLearn*.

It is very important that distance students check their student email for unit announcements regularly, at least every couple of days. In particular, towards the end of semester you should check for announcements on the final exam.

### **Teaching and Learning Strategy**

Important – Students are expected to have completed the assigned reading BEFORE each lecture.

Most of the 3 hour sessions will consist of a 2 hour lecture covering the material for the week followed a workshop / tutorial in the last 1 hour.

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#). Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy [http://mq.edu.au/policy/docs/academic\\_honesty/policy.html](http://mq.edu.au/policy/docs/academic_honesty/policy.html)

Assessment Policy [http://mq.edu.au/policy/docs/assessment/policy\\_2016.html](http://mq.edu.au/policy/docs/assessment/policy_2016.html)

Grade Appeal Policy <http://mq.edu.au/policy/docs/gradeappeal/policy.html>

Complaint Management Procedure for Students and Members of the Public [http://www.mq.edu.au/policy/docs/complaint\\_management/procedure.html](http://www.mq.edu.au/policy/docs/complaint_management/procedure.html)

Disruption to Studies Policy (in effect until Dec 4th, 2017): [http://www.mq.edu.au/policy/docs/disruption\\_studies/policy.html](http://www.mq.edu.au/policy/docs/disruption_studies/policy.html)

Special Consideration Policy (in effect from Dec 4th, 2017): <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/special-consideration>

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of 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/support/student\\_conduct/](https://students.mq.edu.au/support/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](http://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/disruption\\_to\\_studies](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](http://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](http://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/](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 - 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

- Explain the behaviour of different investment types under different economic conditions, recognising risk factors including issuer default, counterparty failure, systemic liquidity, the collapse of speculative bubbles, shocks to the system and cyclical/structural changes. Develop an understanding of the methods used for valuation of the common forms of debt, equity, property and derivative investments. In particular students should be aware of: valuation methods and principles, data requirements and sources, assumptions and limitations of the valuation models.
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- Demonstrate the capacity to conduct research related to investments, in particular regarding application of valuation methods to hybrid securities, derivatives and real options.

## Assessment tasks

- assessed coursework
- Assignment
- case study / research report
- Final exam

## 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

- Explain the behaviour of different investment types under different economic conditions, recognising risk factors including issuer default, counterparty failure, systemic liquidity, the collapse of speculative bubbles, shocks to the system and cyclical/structural changes. Develop an understanding of the methods used for valuation of the common forms of debt, equity, property and derivative investments. In particular students should be aware of: valuation methods and principles, data requirements and sources, assumptions and limitations of the valuation models.
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- Demonstrate the capacity to conduct research related to investments, in particular regarding application of valuation methods to hybrid securities, derivatives and real options.

## Assessment tasks

- assessed coursework
- Assignment
- case study / research report
- Final exam

## PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

## Learning outcomes

- Develop an understanding of the major economic and financial theories relevant to investment including the capital asset pricing model, multifactor pricing models, the arbitrage pricing model, Portfolio theory, the Black Litterman approach, efficient markets hypothesis and ideas from behavioural finance.
- Construct, critically evaluate and apply asset models that are appropriate to the management of liabilities. Define appropriate investment objectives based on the liability profile of a fund, specify appropriate investment constraints based on the liability profile

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- Demonstrate the capacity to conduct research related to investments, in particular regarding application of valuation methods to hybrid securities, derivatives and real options.

## **Assessment tasks**

- assessed coursework
- Assignment
- case study / research report
- Final exam

## **PG - Effective Communication**

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

## **Learning outcomes**

- Explain the behaviour of different investment types under different economic conditions, recognising risk factors including issuer default, counterparty failure, systemic liquidity, the collapse of speculative bubbles, shocks to the system and cyclical/structural changes. Develop an understanding of the methods used for valuation of the common forms of debt, equity, property and derivative investments. In particular students should be aware of: valuation methods and principles, data requirements and sources, assumptions and limitations of the valuation models.
- Demonstrate the capacity to conduct research related to investments, in particular regarding application of valuation methods to hybrid securities, derivatives and real options.

## Assessment tasks

- assessed coursework
- Assignment
- case study / research report
- Final exam

## Changes from Previous Offering

There are minor changes in the assessment tasks. This year we have a case study assignment and the weightings of the other assessment tasks have been revised downwards, except for the final exam which is the same as last year.

## Research and Practice

The unit will develop students' abilities to conduct research in a practical context through a wide range of readings, discussions and class activities.