



# ACST771

## Investment Management

S2 Day 2015

*Dept of Applied Finance and Actuarial Studies*

### Contents

<u>General Information</u>	2
<u>Learning Outcomes</u>	3
<u>General Assessment Information</u>	3
<u>Assessment Tasks</u>	4
<u>Delivery and Resources</u>	7
<u>Policies and Procedures</u>	9
<u>Graduate Capabilities</u>	10
<u>Changes from Previous Offering</u>	13
<u>Research and Practice</u>	14

#### 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 Administrator

Hong Xie

[hong.xie@mq.edu.au](mailto:hong.xie@mq.edu.au)

Contact via [hong.xie@mq.edu.au](mailto:hong.xie@mq.edu.au)

Lecturer in Charge

Tim Kyng

[timothy.kyng@mq.edu.au](mailto:timothy.kyng@mq.edu.au)

Contact via [timothy.kyng@mq.edu.au](mailto:timothy.kyng@mq.edu.au)

E4A614

by appointment

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. Develop the ability to apply this understanding to investment decisions. 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, efficient markets hypothesis and ideas from behavioural finance. Develop an understanding of investment theory including markowitz portfolio theory, CAPM, Arbitrage Pricing theory and the Black Litterman approach.

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.

## General Assessment Information

A Standardised Numerical Grade (SNG) gives you an indication of how you have performed within the band for your descriptive grade. The SNG is not a mark, and you may not be able to work it out based on your raw examination and other assessment marks. Nor are you able to determine you are “one mark away” from a different 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 Tasks

Name	Weighting	Due
assessed coursework	10%	TBA
Assignment	20%	TBA
Final exam	70%	University examination period

### assessed coursework

Due: **TBA**

Weighting: **10%**

We will have 5 assessed coursework (homework) tasks for this unit, due in weeks 3, 5, 7, 9 and 11. These will be worth 2 marks each. The tasks will cover the course content of the two weeks prior to the week in which the task was due. so task 1 due in week 3 will cover weeks 1 and 2, task 2 due in week 5 will cover weeks 3 and 4 etc.

No extensions will be granted. Students who have not submitted their solution to the task 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:

- 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. Develop the ability to apply this understanding to investment decisions. 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, efficient markets hypothesis and ideas from behavioural finance. Develop an understanding of investment theory including markowitz portfolio theory, CAPM, Arbitrage Pricing theory

and the Black Litterman approach.

- 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.

## Assignment

Due: **TBA**

Weighting: **20%**

There will be two assignments (worth 10% each) due during the session requiring analysis and written response. The first will be made available on 5/9/2015 and due 2 weeks later. The second will be made available on 10/10/2015 and due 2 weeks later. The timing of the assignment release and due dates may change and we will advise of any changes to the timing. These will be individual assignments, not group assignments. The assignments will include additional questions not included in the assignments for the co-taught unit ACST404.

No extensions will be granted. Late tasks will be accepted up to 72 hours after the submission deadline. There will be a deduction of 20% 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 – 40% penalty). This penalty does not apply for cases in which an application for special consideration is made and approved.

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. Develop the ability to apply this understanding to investment decisions. 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, efficient markets hypothesis and ideas from behavioural finance. Develop an understanding of

investment theory including markowitz portfolio theory, CAPM, Arbitrage Pricing theory and the Black Litterman approach.

- 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.

## 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 special consideration is made and approved

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. Develop the ability to apply this understanding to investment decisions. 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, efficient markets hypothesis and ideas from behavioural finance. Develop an understanding of investment theory including markowitz portfolio theory, CAPM, Arbitrage Pricing theory and the Black Litterman approach.
- 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.

## 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 W5A Theatre 1, Macquarie University, North Ryde. The first lecture will be on 1 August 2015.

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 Investing, 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.html>

Grading Policy <http://mq.edu.au/policy/docs/grading/policy.html>

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

Grievance Management Policy [http://mq.edu.au/policy/docs/grievance\\_management/policy.html](http://mq.edu.au/policy/docs/grievance_management/policy.html)

Disruption to Studies Policy [http://www.mq.edu.au/policy/docs/disruption\\_studies/policy.html](http://www.mq.edu.au/policy/docs/disruption_studies/policy.html) *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

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

*Further information regarding supplementary exams, including dates, is available here*

[http://www.businessandconomics.mq.edu.au/current\\_students/undergraduate/how\\_do\\_i/special\\_consideration](http://www.businessandconomics.mq.edu.au/current_students/undergraduate/how_do_i/special_consideration)

## 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://informatics.mq.edu.au/help/>.

When using the University's IT, you must adhere to the [Acceptable Use 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. Develop the ability to apply this understanding to investment decisions. 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, efficient markets hypothesis and ideas from behavioural finance. Develop an understanding of investment theory including markowitz portfolio theory, CAPM, Arbitrage Pricing theory and the Black Litterman approach.
- 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.

## **Assessment tasks**

- assessed coursework
- Assignment
- 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. Develop the ability to apply this understanding to investment decisions. 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, efficient markets hypothesis and ideas from behavioural finance. Develop an understanding of investment theory including markowitz portfolio theory, CAPM, Arbitrage Pricing theory and the Black Litterman approach.
- 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.

## Assessment tasks

- assessed coursework
- Assignment
- 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**

- 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. Develop the ability to apply this understanding to investment decisions. 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, efficient markets hypothesis and ideas from behavioural finance. Develop an understanding of investment theory including markowitz portfolio theory, CAPM, Arbitrage Pricing theory and the Black Litterman approach.
- 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.

## **Assessment tasks**

- assessed coursework
- Assignment
- Final exam

## **Changes from Previous Offering**

There are changes in the assessment tasks. There are now 2 assignments worth 10%

each instead of 1 worth 20% and there is now a set of 5 homework tasks worth 2 marks each. The final exam counts for 70% of the assessment.

## **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.