AFIN839
Portfolio Management
S1 Day 2016
Dept of Applied Finance and Actuarial Studies

Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
<td>2</td>
</tr>
<tr>
<td>Learning Outcomes</td>
<td>2</td>
</tr>
<tr>
<td>Assessment Tasks</td>
<td>3</td>
</tr>
<tr>
<td>Delivery and Resources</td>
<td>6</td>
</tr>
<tr>
<td>Unit Schedule</td>
<td>7</td>
</tr>
<tr>
<td>Policies and Procedures</td>
<td>9</td>
</tr>
<tr>
<td>Graduate Capabilities</td>
<td>11</td>
</tr>
</tbody>
</table>

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General Information

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Credit points
4

Prerequisites
ACST603 or AFIN858 or (4cp in ACCG or BUS or ECON or MKTG units at 600 level)

Corequisites

Co-badged status

Unit description
This unit covers the principles, theory and techniques of portfolio management. Study of this unit provides a basis for the effective management of investment portfolios, as well as an understanding of the limitations of techniques commonly applied to problems of portfolio construction and performance evaluation.

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:

Know the behavioural and statistical assumptions underlying the tools and techniques of portfolio management and have developed an awareness of their rationale and limitations

Understand the economic principles of arbitrage and market efficiency - with a particular focus on their implications for funds management
Be able to apply key factor pricing models to practical problems in portfolio construction and performance evaluation - both as statistical tools and as economic points of reference
Have an understanding of the sources of modelled risk and approaches to managing such exposures
Have gained an understanding of alternative criteria for constructing portfolios and benchmarking performance
Have developed an awareness of the need to consider the limitations of models and techniques when applied outside of textbook examples - including exposures to risks that are outside the scope of standard models

**Assessment Tasks**

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Test 1</td>
<td>10%</td>
<td>Week 3</td>
</tr>
<tr>
<td>Class Test 2</td>
<td>25%</td>
<td>Week 7</td>
</tr>
<tr>
<td>Assignment</td>
<td>25%</td>
<td>Week 12</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
<td>TBA</td>
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</tbody>
</table>

**Class Test 1**
Due: **Week 3**
Weighting: **10%**

Submission

20-minute, closed book, in-class test based on the material covered in weeks 1 and 2. Short answers and calculations. The test will commence at the beginning of the week 3 class.

Extension

The class test must be sat on time by all students. No time extension is provided for late arrival at the test.

Penalties

Students who miss the test, cheat or otherwise fail to comply with the test rules will be awarded zero marks.

On successful completion you will be able to:

- Know the behavioural and statistical assumptions underlying the tools and techniques of portfolio management and have developed an awareness of their rationale and
limitations
• Understand the economic principles of arbitrage and market efficiency - with a particular focus on their implications for funds management
• Be able to apply key factor pricing models to practical problems in portfolio construction and performance evaluation - both as statistical tools and as economic points of reference
• Have an understanding of the sources of modelled risk and approaches to managing such exposures
• Have gained an understanding of alternative criteria for constructing portfolios and benchmarking performance

Class Test 2

Due: Week 7
Weighting: 25%

Submission
60-minute, closed book, in-class test based on the material covered in lectures 1 - 6 (inclusive). Short answers and calculations. The test will commence at the beginning of the week 7 class.

Extension
The class test must be sat on time by all students. No time extension is provided for late arrival at the test.

Penalties
Students who miss the test, cheat or otherwise fail to comply with the test rules will be awarded zero marks.

On successful completion you will be able to:
• Know the behavioural and statistical assumptions underlying the tools and techniques of portfolio management and have developed an awareness of their rationale and limitations
• Understand the economic principles of arbitrage and market efficiency - with a particular focus on their implications for funds management
• Be able to apply key factor pricing models to practical problems in portfolio construction and performance evaluation - both as statistical tools and as economic points of reference

Assignment
Due: Week 12
Weighting: **25%**

Submission

This assignment involves multiple submissions: a progress report due in class in week 7 and a final submission due in week 12. Class presentations will also be scheduled for week 12.

Extension

Exceptional circumstances notwithstanding, no extensions will be provided. If you experience problems then please seek help sooner rather than later.

Penalties

Late submissions will be accepted up to 96* hours after the submission deadline. There will be a deduction of 10%* 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 - 20% 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:

- Know the behavioural and statistical assumptions underlying the tools and techniques of portfolio management and have developed an awareness of their rationale and limitations
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- Have an understanding of the sources of modelled risk and approaches to managing such exposures
- Have gained an understanding of alternative criteria for constructing portfolios and benchmarking performance
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Final Exam

Due: **TBA**

Weighting: **40%**

Submission

120-minute, closed book examination based on the material covered in lectures 1 - 13
On successful completion you will be able to:

- Know the behavioural and statistical assumptions underlying the tools and techniques of portfolio management and have developed an awareness of their rationale and limitations
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**Delivery and Resources**

**Classes**

Classes are 3-hour seminars running 2-5pm on Fridays in C5A 304. A typical class will be structured as a 2-hour lecture followed by 1-hour tutorial - though the distinction between the two may be blurred. Please feel free to ask (and answer!) questions throughout the class. Attendance at classes is compulsory.

**Consultation hours:** Thursdays 9:15-11:15am. If I change my consultation hours I will make an announcement on iLearn. If you cannot make it during my scheduled consultation hours, then please email me for an appointment.

**Recommended Texts and/or Materials**

It is not essential to purchase a textbook for the unit, but the following text is particularly useful.


We will supplement the lecture materials with readings from journals and other textbooks. Other
useful texts are listed below.


Refer to the unit web page for other useful references and resources.

**Technology Used and Required**

Necessary technology: scientific or business calculator without alphanumeric capabilities, internet access, computer with MS Excel.

Useful technology: The MATLAB software environment is very useful if you intend doing this sort of work professionally.

For details of the student version please refer to:


**Unit Web Page**

Log in via https://ilearn.mq.edu.au

**Teaching and Learning Activities**

The first two hours of each class will be a lecture-style presentation, the third hour an interactive tutorial.

You are strongly advised to attempt all assigned tutorial questions before the weekly tutorial class, and before consulting the solutions. It is very easy to be lulled into a false sense of security by simply reading questions and looking at the solutions.

Each week you are required to submit your attempt at the tutorial questions. Success in this unit depends on keeping up with the weekly content, so doing the tutorial work is essential. Whilst no assessment marks are allocated to tutorial assignments, submission of your work will be recorded to provide evidence of your satisfactory performance/progress.

Solutions to tutorial questions will be provided at the end of the week in which they're due.

**Research and Practice**

- This unit uses research by Macquarie University researchers (Week 10, 11)
- This unit uses research from external sources (most weeks)
- This unit gives you practice in applying your own research findings in your assignments

**Unit Schedule**

*The unit schedule below is provided as a guide only. I may amend the coverage of topics*
as we go, so always check the lecture notes.

Week 1: Introduction & Overview  (Week beginning February 29, 2016)
Topics: Objectives, some statistical and mathematical background, definitions etc.
Reading: Lecture notes and supplements, + Reilly and Brown (R&B) Ch 1 & 2.

Week 2: Traditional (Mean-Variance) Portfolio Theory (Week beginning March 7, 2016)
Topics: Risk aversion, discrete versus continuous compounding, optimisation problem, estimation issues
Reading: R&B Ch 7; Elton, Gruber, Brown and Goetzmann (EGBG) Ch 4 & 5.

Week 3: Informational Efficiency + Class Test 1 (Week beginning March 14, 2016)
Topics: Definitions, theory, empirical evidence with relevance to funds management.
Reading: R&B Ch 6 + Additional readings

Week 4: No Class due to Good Friday (Week beginning March 21, 2016)

Week 5: Asset Allocation Parameters (Week beginning March 28, 2016)
Topics: Issues of estimation, shrinkage, factor models
Reading: Haugen Chapter 6; EGBG Chapter 7.

Week 6: Equity Portfolio Management (Week beginning April 4, 2016)
Topics: Index investment, active management, investment strategies (strategic, tactical, statistical arbitrage etc), Black-Litterman
Reading: R&B Ch 16

Mid-Semester Break: April 11 - April 22, 2016

Week 7: Class Test 2 (Mid-semester) (Week beginning April 25, 2016)

Week 8: Performance Measurement  (Week beginning May 2, 2016)
Topics: Jensen, Sharpe, Treynor Indices; Information ratio, Portfolio Performance Index (PPI), Extrapolation issues.
Reading: R&B Ch 25, plus additional readings on the unit web page.

Week 9: Portfolio Construction (Extensions), Derivatives and Portfolio Management (Week beginning May 9, 2016)
Topics: Alternative objectives and portfolio construction criteria; role of derivatives.
Reading: R&B Ch 20 + additional readings

Week 10: Hedge Funds, Alternative Assets and Risk Management (Week beginning May 16, 2016)
Topics: Alternative investments with particular focus on Hedge Funds
Reading: R&B Ch 24 + additional readings

Week 11: Models: Limitations & Failure (Week beginning May 23, 2016)
Topics: Behavioural biases, statistical issues and potential responses
Reading: To be provided

Week 12: Miscellaneous Extensions and Group Presentations (Week beginning May 30, 2016)
Reading: To be provided

Week 13: Summary (Week beginning June 6, 2016)

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


In addition, a number of other policies can be found in the [Learning and Teaching Category of Policy Central](http://www.mq.edu.au/policy/docs/disruption_studies/policy.html).

**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.businessandeconomics.mq.edu.au/current_students/undergraduate/how_do_i/special_consideration](http://www.businessandeconomics.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/](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](http://www.mq.edu.au) who can provide appropriate help with any issues that arise during their studies.
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

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Assessment tasks

• Class Test 1
• Class Test 2
• 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

- Know the behavioural and statistical assumptions underlying the tools and techniques of portfolio management and have developed an awareness of their rationale and limitations
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Assessment tasks

- Class Test 1
- Class Test 2
- 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

- Understand the economic principles of arbitrage and market efficiency - with a particular focus on their implications for funds management
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