



AFIN839

Portfolio Management

S1 Day 2014

Applied Finance and Actuarial Studies

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General Information

Unit convenor and teaching staff

Unit Convenor

Egon Kalotay

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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) or admission to MCom or MIntBus or MEc or MActPrac prior to 2011

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

Name	Weighting	Due
Class Test 1	10%	Week 3
Class Test 2	25%	Week 7
Assignment	25%	Week 12
Class Test 3	40%	Week 13

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
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Class Test 2

Due: **Week 7**

Weighting: **25%**

Submission

60-minute, closed book, in-class test based on the material covered in lectures 1 - 5 (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:

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- 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
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Class Test 3

Due: **Week 13**

Weighting: **40%**

Submission

120-minute, closed book, in-class test based on the material covered in lectures 1 - 12 (inclusive). Short answers and calculations. The test will commence at the beginning of the week 13 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
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Delivery and Resources

Classes

Classes are 3-hour seminars running 12-3pm on Mondays in E5A 110. 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: Fridays 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.

Required and Recommended Texts and/or Materials

Prescribed

The recommended text for purchase is:

Investment Analysis and Portfolio Management by Reilly and Brown. 10th Edition, 2011,

South-Western Cengage Learning. ISBN 0538482389

However, we will supplement the book with readings from journals and other textbooks. Other useful texts are listed below.

Modern Portfolio Theory and Investment Analysis by Elton, Gruber, Brown and Goetzmann. 7th Edition, John Wiley and Sons, Inc, 2007. ISBN 978-0470-05082-2

Modern Investment Theory by Haugen, 5th Edition, Prentice Hall, 2001. ISBN 0-13-019170-1

Investments by Levy and Post. Pearson Publishing, 2005. ISBN 0-273-65164-1

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:

http://www.mathworks.com.au/academia/student_version/

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

Changes since Last Offering of this Unit

The core content and structure of this unit has not changed since the semester 2 2013 offering, however, as always, I do amend the depth and scope of topic coverage in accordance with the ability, interest and progress of students in the class.

Unit Schedule

Week 1: Introduction & Overview (*Week beginning March 3, 2014*)

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 10, 2014*)

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 (*Week beginning March 17, 2014*)

Topics: Definitions, theory, empirical evidence with relevance to funds management.

Reading: R&B Ch 6 + Additional readings

Week 4: Asset Allocation Parameters + Class Test 1 (*Week beginning March 24, 2014*)

Topics: Issues of estimation, shrinkage, factor models

Reading: Haugen Chapter 6; EGBG Chapter 7.

Week 5: Equity Portfolio Management (*Week beginning March 31, 2014*)

Topics: Index investment, active management, investment strategies (strategic, tactical, statistical arbitrage etc), Black-Litterman

Reading: R&B Ch 16

Week 6: Bond Portfolio Management (*Week beginning April 7, 2014*)

Topics: Risk sources (price volatility, credit etc), duration, convexity, call provisions, portfolio construction.

Reading: R&B Ch 19 + additional reading(s) on unit web page.

Mid-Semester Break: April 14 - April 25, 2014

Week 7: Class Test 2 (Mid-semester) (*Week beginning April 28, 2014*)

Assignment groups will make progress reports after the test this week.

Week 8: Performance Measurement (*Week beginning May 5, 2014*)

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 12, 2014*)

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 19, 2014*)

Topics: Alternative investments with particular focus on Hedge Funds

Reading: R&B Ch 24 + additional readings

Week 11: Models: Limitations & Failure (*Week beginning May 26, 2014*)

Topics: Behavioural biases, statistical issues and potential responses

Reading: To be provided

Week 12: Summary and Miscellaneous Extensions and Group Presentations (*Week beginning June 2, 2014*)

Reading: To be provided

Week 13: Class Test 3 (End of Semester) (*Week beginning June 10, 2014*)

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

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

Disruption to Studies Policy 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/

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

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

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

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Assessment tasks

- Class Test 1
- Class Test 2
- Assignment
- Class Test 3

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
- Class Test 3

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

- 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
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