

AFCP801

Portfolio Management and Valuation

AFC Term 3 CBD 2016

Dept of Applied Finance and Actuarial Studies

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General Information

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Lecturer Laurence Irlicht Iaurence.irlicht@mafc.mq.edu.au Contact via Email

Credit points 4

Prerequisites

(Admission to GradDipAppFin or MAppFin) and (AFCP810 and AFCP811 and AFCP812 and AFCP813)

Corequisites

Co-badged status

Unit description

This unit equips students to apply an advanced body of finance knowledge to a range of contexts. The unit commences with an individual investor's perspective and then progresses to the viewpoint of a professional funds manager. This enables the student to develop the ideas of portfolio theory, asset pricing and behavioural finance. The unit continues with a security analysts' perspective to address the broad question of how to value enterprises and then drills down to security valuation, financial statement and cash flow analysis. Lastly we shift the focus to that of a derivatives trader to explore the pricing of forwards and options and employing these derivatives to achieve desired asset allocation exposures. The unit emphasises an applied orientation for the major techniques and themes to be further extended and developed across the Masters program. It represents the essential pre-requisite knowledge for all other core units and elective streams.

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 and apply the key theories, concepts, and models relevant to portfolio

management, derivatives, financial analysis and valuation.

Critically evaluate the key theories, concepts, and models relevant to portfolio

management, derivatives, financial analysis and valuation.

Apply research methods to evaluate investment portfolio construction principles and asset pricing theory.

Solve problems, through the use of applications, relevant to portfolio management, derivatives, financial analysis and valuation.

General Assessment Information

To pass this unit (requires a Standardised Numerical Grade of 50 or better) the student is required to pass the combined examinations component of the assessment.

Assessment Tasks

Name	Weighting	Due
Online Quizzes	5%	Refer to iLearn
Mid Term Exam	20%	Refer to Timetable
Assignment	35%	Refer to iLearn
Final Exam	40%	Refer to Timetable

Online Quizzes

Due: Refer to iLearn Weighting: 5%

Summary of Assessment Task

Individual / Group: Individual

Due Date: Refer to the Unit's iLearn site

Grading Method: Refer to 'Standards Required to Complete the Unit Satisfactorily' section

Submission Method: In iLearn

Duration: Refer to online quiz instructions

Extension Requests:

- If you have extenuating circumstances that prevent you from submitting your assignment by the due date, please make arrangements with your lecturer prior to the due date.
- Unless prior arrangements have been made, any missed quizes will automatically be penalised. In the absence of special circumstances, a zero mark will apply.

On successful completion you will be able to:

- Explain and apply the key theories, concepts, and models relevant to portfolio management, derivatives, financial analysis and valuation.
- Critically evaluate the key theories, concepts, and models relevant to portfolio management, derivatives, financial analysis and valuation.
- Solve problems, through the use of applications, relevant to portfolio management, derivatives, financial analysis and valuation.

Mid Term Exam

Due: Refer to Timetable Weighting: 20%

Summary of Assessment Task

Individual / Group: Individual

Due Date: Refer to Timetable.

Assessments: Different Class Groups have different deadlines. Students should find the timetable and dates relevant to their group at www.mafc.mq.edu.au

Grading Method: Refer to 'Standards Required to Complete the Unit Satisfactorily' section

Submission Method: As per MAFC Program Rules & Procedures at www.mafc.mq.edu.au

Duration: 2 hours plus 10 minutes reading time

Examination Conditions:

- All examinations are closed book. However, permitted materials and aids are:
 - A study sheet, prepared by the student (typically one double-sided A4 page).
 - Calculators. Permitted calculators are noted under 'Calculators' below.
- Exam times and locations are noted in the unit timetable at www.mafc.mq.edu.au.
- Refer to MAFC Program Rules & Procedures at www.mafc.mq.edu.au.

Extension Requests:

- You are expected to present yourself for examination at the time and place designated in the relevant MAFC Timetable at www.mafc.mq.edu.au.
- Deferral of an examination is not permitted, unless special consideration has been approved by the Director of Studies under the University's Disruption to Studies Policy.
- Refer to MAFC Program Rules & Procedures at <u>www.mafc.mq.edu.au</u> for information on the University's Disruption to Studies Policy or non-attendance at an examination.

On successful completion you will be able to:

- Explain and apply the key theories, concepts, and models relevant to portfolio management, derivatives, financial analysis and valuation.
- Critically evaluate the key theories, concepts, and models relevant to portfolio management, derivatives, financial analysis and valuation.
- Solve problems, through the use of applications, relevant to portfolio management, derivatives, financial analysis and valuation.

Assignment

Due: Refer to iLearn Weighting: 35%

Summary of Assessment Task

Individual / Group: A combination of individual and group work (refer to Assignment coversheet).

Due Date: Refer to the Unit's iLearn site

Grading Method: Refer to 'Standards Required to Complete the Unit Satisfactorily' section

Submission Method: Via Turnitin on iLearn.

Duration: Refer to Assignment coversheet

Extension Requests:

- If you have extenuating circumstances that prevent you from submitting your assignment by the due date, please make arrangements with your lecturer prior to the due date.
- Unless prior arrangements have been made, any late submission of assignments will automatically be penalised. In the absence of special circumstances, a zero mark will apply.

On successful completion you will be able to:

• Critically evaluate the key theories, concepts, and models relevant to portfolio management, derivatives, financial analysis and valuation.

- Apply research methods to evaluate investment portfolio construction principles and asset pricing theory.
- Solve problems, through the use of applications, relevant to portfolio management, derivatives, financial analysis and valuation.

Final Exam

Due: **Refer to Timetable** Weighting: **40%**

Summary of Assessment Task

Individual / Group: Individual

Due Date: Refer to Timetable.

Assessments: Different Class Groups have different deadlines. Students should find the timetable and dates relevant to their group at www.mafc.mq.edu.au

Grading Method: Refer to 'Standards Required to Complete the Unit Satisfactorily' section

Submission Method: As per MAFC Program Rules & Procedures at www.mafc.mq.edu.au

Duration: 2 hours plus 10 minutes reading time

Examination Conditions:

- All examinations are closed book. However, permitted materials and aids are:
 - A study sheet, prepared by the student (typically one double-sided A4 page).
 - Calculators. Permitted calculators are noted under 'Calculators' below.
- Exam times and locations are noted in the unit timetable at www.mafc.mq.edu.au.
- Refer to MAFC Program Rules & Procedures at www.mafc.mq.edu.au.

Extension Requests:

- You are expected to present yourself for examination at the time and place designated in the relevant MAFC Timetable at www.mafc.mg.edu.au.
- Deferral of an examination is not permitted, unless special consideration has been approved by the Director of Studies under the University's Disruption to Studies Policy.
- Refer to MAFC Program Rules & Procedures at <u>www.mafc.mq.edu.au</u> for information on the University's Disruption to Studies Policy or non-attendance at an examination.

On successful completion you will be able to:

- Explain and apply the key theories, concepts, and models relevant to portfolio management, derivatives, financial analysis and valuation.
- Critically evaluate the key theories, concepts, and models relevant to portfolio

management, derivatives, financial analysis and valuation.

• Solve problems, through the use of applications, relevant to portfolio management, derivatives, financial analysis and valuation.

Delivery and Resources

CLASSES

Face-to-Face Teaching: Generally 36 hours

Timetable: Detailed timetable for classes are on the Centre's web site www.mafc.mq.edu.au

Class Changes:

Students will only be permitted to change classes if authorised by the Applied Finance Centre.

Request for changes must be made:

- By completion of a Change of Unit Form, available on the Centre's web site at www.maf c.mq.edu.au; or
- In person by going to reception at the relevant Applied Finance Centre location.

Consultation Times:

Students who wish to contact any of the teaching staff may do so through:

- iLearn, in relation to general queries (so that all students may benefit); or
- Individual consultation with the lecturer by email in the first instance, if necessary.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Text: Bodie, Kane and Marcus, *Investments*, McGraw Hill, 10TH edition, 2014, ISBN 9780077861674 (BKM).

Additional Readings:

- Additional readings are included in the unit notes and or iLearn.
- Students should assume these readings are examinable unless otherwise advised.

Lecture Notes: Available in printed form and electronically via iLearn.

Study Problems:

- Students are required to work systematically through end of chapter problem sets. These
 problems will not be collected but they will help you prepare for the exams. Answers, but
 not worked solutions, to set problems are provided in the lecture notes.
- Please refer to the Bodie, Kane and Marcus, Investments Solutions Manual for worked solutions.

Pre-Unit Materials:

- Information papers on statistics, regression, accounting and other material may be found at http://www.mafc.mq.edu.au/applications/minimum-knowledge-requirement/pre-coursematerials1/.
- Students should work through this material prior to commencing the degree.
- The material will remain a useful reference as students progress through the program.

Useful References:

- McDonald, *Derivatives Markets*, Pearson
- Ross, Westerfield and Jaffe, Corporate Finance, Mcgraw Hill
- Bodie, Kane and Marcus, Investments Solutions Manual, McGraw Hill
- Damodaran, Investment Valuation, Wiley
- Elton, Gruber, Brown & Goetzmann, *Modern Portfolio Theory and Investment Analysis,* Wiley.

Calculators:

- A financial calculator that can handle time value of money calculations, logs and power functions is required.
- The Hewlett Packard calculator hp17bll+ is recommended.
- In examinations, hand held calculators are permitted. Mobile phones and computers are not permitted.

Assumed Knowledge: Mathematical content

 Finance has a high level of numerate content. Consequently this unit is, in parts, mathematical and arithmetical. As an indication of the level of algebra required, students should find the following problem easy to solve:

Solve for
$$Z_5$$
: \$1,000 = \$681.20(1+ $Z_5/2$)¹⁰

• Occasionally the unit dips into the differential calculus. As an indication of the level of calculus required, students should be able to interpret the following equation:

$$\mathsf{D} = -((1+y) / \mathsf{P}) (\Delta \mathsf{P} / \Delta y)$$

 Students should look at the web link below to obtain notes on the minimum mathematical and statistical knowledge required to undertake the Master of Applied Finance degree: <u>ht</u> <u>tp://www.mafc.mq.edu.au/applications/minimum-knowledge-requirement/pre-course-mat</u> <u>erials1/</u>

Assumed Access:

- Access to a computer with word processing and spreadsheet capability is assumed, as is general student computer literacy.
- Also assumed is access to a Web browser (eg Internet Explorer or Firefox) and email software and a student's own connection to an internet service provider.

TECHNOLOGY USED AND REQUIRED

Unit iLearn Site:

- Found by logging on to iLearn <u>ilearn.mq.edu.au</u>, then clicking on *Portfolio Management* and Valuation under the Term heading.
- This is where you will find a link to forums, downloadable resources and other important pages.
- Forums allow you to communicate with other students and lecturer(s) and may provide supplementary material.
- You are requested to post questions to forums at least 24 hours prior to an assignment submission date or examination date. Questions posted after that time may not be answered. **Please try to not leave your questions to the last few days.**

Important Notice:

- It is important that you familiarize yourself with iLearn.
- Students should check iLearn regularly (minimum twice a week and prior to all lectures) and look for updates and distribution of materials (including case studies) related to the unit or assessments and, if relevant, participate in forum discussions.

Unit Schedule

1. Asset allocation (2 sessions)

- Introduction to the individual's investment problem
- Asset markets
- Investment valuation basics
- · Forecast risk and return
- Risk attitude risk aversion and utility
- Asset Allocation

2. Asset Pricing Model (2 sessions)

- Review research methods
- · Active and passive management

- Risk adjusted discounting rates
- Multi factor portfolio management

3. Portfolio optimization (1 session)

- Review of Markowitz model
- MSCI Barra portfolio optimization platform
- Topic case study: the argument for international diversification and currency management

4. Behavioural Finance overview, market efficiency and anomalies (1 session)

- Review of market efficiency
- Anomalies
- Behavioural finance
- Empirical testing

5. Fundamental Stock Analysis (3 sessions)

- Financial statement analysis
 - The role of financial analysis
 - The Financial Analysis Toolkit
 - Financial ratio analysis
 - Applying the du Pont system of ratio analysis
 - Segmental financial analysis
 - Residual Income Valuation
- · Cash flow analysis and financial modelling
 - The importance of cash flows in investment analysis and corporate finance applications
 - Cash flows statements for reporting and analysis purposes
 - Applying a cash flow analysis framework
 - Principles of forecasting and financial modelling
- Valuation principles
 - Key valuation concepts and methods
 - Discounted Cash Flow approach and WACC
 - Expected cash flows
 - Inflation and valuation
 - Terminal values
 - Multiples and relative valuation

6. Derivatives (3 sessions)

- · Derivatives Overview
- · Futures and Forwards Hedging and Speculation Strategies
- · Derivative Overlays and Asset Allocation Strategies
- Option Introduction
- Option Strategies
- Put-Call Parity
- Black-Scholes Valuation
- Portfolio Insurance

Learning and Teaching Activities

Strategy

The Master of Applied Finance degree adopts a deep teaching and learning strategy, in which Students acquire and retain knowledge and also are able to make sense of the issues and concepts and apply them in the "real world". The degree relies heavily on student engagement and participation by: (a) Continuous learning throughout the semester. This is encouraged through a combination of students undertaking prescribed reading throughout the units and / or completion of practice problems, case studies, assignments, class presentations etc and interaction via forums in the unit's iLearn site; and (b) Assessments, which enable the student to demonstrate his / her understanding of the learning objectives achieved through the continuous learning.

Student Participation

Students participate in this unit by: (a) Attending lectures and participating in class discussion; (b) Before each class, completing the recommended readings of notes and text, and working systematically through suggested problem sets; (c) Interacting on the unit's iLearn site; and (d) Completing all assessment tasks and exams. On average the unit will require students to complete, for every hour of class time, approximately 3 hours private study.

Policies and Procedures

Macquarie University policies and procedures are accessible from <u>Policy Central</u>. 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

New Assessment Policy in effect from Session 2 2016 http://mq.edu.au/policy/docs/assessm ent/policy_2016.html. For more information visit <u>http://students.mq.edu.au/events/2016/07/19/ne</u> w_assessment_policy_in_place_from_session_2/

Assessment Policy prior to Session 2 2016 http://mq.edu.au/policy/docs/assessment/policy.html

Grading Policy prior to Session 2 2016 http://mq.edu.au/policy/docs/grading/policy.html

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

Complaint Management Procedure for Students and Members of the Public <u>http://www.mq.edu.a</u> u/policy/docs/complaint_management/procedure.html

Disruption to Studies Policy <u>http://www.mq.edu.au/policy/docs/disruption_studies/policy.html</u> 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/

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 <u>eStudent</u>. For more information visit <u>ask.m</u> <u>q.edu.au</u>.

Students should also consult the MAFC Program Rules & Procedures found at http://www.maf c.mq.edu.au

Student Support

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

Learning Skills

Learning Skills (<u>mq.edu.au/learningskills</u>) 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 enquiry service (MAFC-specific)

For all student enquires, please contact studentsupport@mafc.mq.edu.au

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.

Learning Skills

Learning Skills (http://www.students.mq.edu.au/support/learning_skills/) 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 Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

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.

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 outcome

• Explain and apply the key theories, concepts, and models relevant to portfolio management, derivatives, financial analysis and valuation.

Assessment tasks

- Online Quizzes
- Mid Term Exam
- 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 outcome

• Critically evaluate the key theories, concepts, and models relevant to portfolio management, derivatives, financial analysis and valuation.

Assessment tasks

- Online Quizzes
- Mid Term Exam
- 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

- Apply research methods to evaluate investment portfolio construction principles and asset pricing theory.
- Solve problems, through the use of applications, relevant to portfolio management, derivatives, financial analysis and valuation.

Assessment tasks

- Online Quizzes
- Mid Term Exam
- Assignment
- Final Exam

Important Notice

This Unit Guide may be subject to change. The latest version is on the Centre's web site www.m afc.mq.edu.au.

Students should read the Unit Guide carefully at the start of semester. It contains important information about the unit. If anything is unclear, please consult one of the unit lecturers.

Standards Required to Complete the Unit Satisfactorily

University Policy on Grading:

- Macquarie University's Academic Senate has established a Grading Policy available at <u>h</u>.
 ttp://www.mq.edu.au/policy/docs/grading/policy.html. Your final result will include:
 - A grade ranging from Fail to High Distinction; and
 - A Standardised Numerical Grade (SNG). A SNG is not a summation of the individual assessment components, but is allocated on the basis of the performance in all assessment items, providing the examination component is passed.
- It is important to note:
 - The Policy does not require that a minimum or maximum number of students are to be failed in any unit;
 - · Grades will not be allocated to fit a predetermined distribution; and
 - The process of allocating SNGs does not change the rank order of marks among students who pass the unit.

Specific Unit Grading:

- To pass this unit (requires a Standardised Numerical Grade of 50 or better) the student is required to pass the combined examinations component of the assessment.
- All final grades in the Applied Finance Centre are determined by a grading committee and are not the sole responsibility of the unit convenor.
- The core criteria used to assess student work in this unit are:
 - Knowledge and understanding: Understanding key ideas, knowledge and use of concepts.
 - Application: Ability to apply theoretical ideas and frameworks in practice and in a critically reflective way.
 - Reasoning and analysis: Ability to analyse, use critical reasoning and principles to formulate a position, balancing theory and personal reflection.
 - Professional literacy and research: Understanding of professional factors (language and landscape) and ability to undertake appropriate research.
 - Communication and presentation: Ability to communicate and present effectively (written and oral, as relevant).
 - Use of mathematical and statistical ideas: Ability to use mathematical and statistical ideas, methods and formulae appropriately.

• Performance in relation to each of these criteria are assessed against the University's grading descriptors:

Grade	Expectation
High Distinction	Provides consistent evidence of deep and critical understanding in relation to the learning outcomes. There is substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critical evaluation of problems, their solutions and their implications; creativity in application as appropriate to the discipline.
Distinction	Provides evidence of integration and evaluation of critical ideas, principles and theories, distinctive insight and ability in applying relevant skills and concepts in relation to learning outcomes. There is demonstration of frequent originality in defining and analysing issues or problems and providing solutions; and the use of means of communication appropriate to the discipline and the audience.
Credit	Provides evidence of learning that goes beyond replication of content knowledge or skills relevant to the learning outcomes. There is demonstration of substantial understanding of fundamental concepts in the field of study and the ability to apply these concepts in a variety of contexts; convincing argumentation with appropriate coherent justification; communication of ideas fluently and clearly in terms of the conventions of the discipline.
Pass	Provides sufficient evidence of the achievement of learning outcomes. There is demonstration of understanding and application of fundamental concepts of the field of study; routine argumentation with acceptable justification; communication of information and ideas adequately in terms of the conventions of the discipline. The learning attainment is considered satisfactory or adequate or competent or capable in relation to the specified outcomes.
Fail	Does not provide evidence of attainment of learning outcomes. There is missing or partial or superficial or faulty understanding and application of the fundamental concepts in the field of study; missing, undeveloped, inappropriate or confusing argumentation; incomplete, confusing or lacking communication of ideas in ways that give little attention to the conventions of the discipline.

Review of Grade and final examination Script viewing:

- A student who has been awarded a final grade for a unit and who does not believe it is an accurate reflection of their performance, and has grounds for such a claim and can demonstrate those grounds, may apply to have their grade reviewed.
- For information on requesting a review of grade and/or viewing your final exam script, please refer to the University's Grade Appeal Policy at http://www.mq.edu.au/policy/doc s/gradeappeal/policy.html and MAFC Program Rules & Procedures at http://www.mafc.mg.edu.au q.edu.au.