AFCP854
Investment and Credit Analysis
AFC Term 2 CBD 2016
Dept of Applied Finance and Actuarial Studies

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Satisfactorily

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

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Lecturer
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Credit points
2

Prerequisites
(Admission to MAppFin or PGCertAppFin or GradDipAppFin) and ECFS866

Corequisites

Co-badged status

Unit description
This unit covers the use of advanced financial analysis and modelling techniques in corporate finance applications, and is designed for students interested in analyst roles in equity and credit analysis, banking or consulting environments. Building on concepts introduced in ECFS866, this unit complements other corporate finance electives. The unit will allow students to explore the linkage between a company’s strategy and industry competitive structure, and financial performance. We will analyse financial performance by demonstrating financial analysis techniques, and assess the impact of accounting issues in analysing a company’s financial results. The unit will explore how financial modelling can be used to assist in addressing these issues.

Important Academic Dates
Information about important academic dates including deadlines for withdrawing from units are available at http://students.mq.edu.au/student_admin/enrolmentguide/academicdates/

Learning Outcomes

1. The crux of this unit is for students to be able to determine the robustness of cashflow forecasts for a given industry or strategy.
2. Develop more advanced modelling and forecasting skills.
3. Students should be able to apply a range of credit risk metrics to a series of forecast financial results.

General Assessment Information
To pass this unit (requires a Standardised Numerical Grade of 50 or better) the student must pass the final examination.

Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre course Assignment</td>
<td>15%</td>
<td>Week 1</td>
</tr>
<tr>
<td>Assignment</td>
<td>35%</td>
<td>Refer to iLearn</td>
</tr>
<tr>
<td>Final Exam</td>
<td>50%</td>
<td>Refer to Timetable</td>
</tr>
</tbody>
</table>

Pre course Assignment
Due: **Week 1**
Weighting: **15%**

Summary of Assessment Task

**Individual / Group:** Individual

**Due Date:** First Class

**Grading Method:** Refer to ‘Standards Required to Complete the Unit Satisfactorily’ section

**Submission Method:** In class

**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, the penalty will be 10% of the available marks for the assessment for each business day (or part thereof) they are late.

**Other Information:** Pre course assignment will involve review of material from prerequisite subjects and will be available in course notes and ilearn site
This Assessment Task relates to the following Learning Outcomes:

• The crux of this unit is for students to be able to determine the robustness of cashflow forecasts for a given industry or strategy.

• Develop more advanced modelling and forecasting skills.

Assignment
Due: Refer to iLearn
Weighting: 35%

Summary of Assessment Task
Individual / Group: Group
Due Date: Refer to iLearn
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, the penalty will be 10% of the available marks for the assessment for each business day (or part thereof) they are late.

Other Information:

• Case Study will be handed out in class, or placed on Course Web or Course Forum;

• Generally is a detailed investment analysis report. Students will have opportunity to complete an analysis from equity or credit perspective.

This Assessment Task relates to the following Learning Outcomes:

• The crux of this unit is for students to be able to determine the robustness of cashflow forecasts for a given industry or strategy.

• Develop more advanced modelling and forecasting skills.
Final Exam
Due: Refer to Timetable
Weighting: 50%

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 (single, double-sided A4 page), with formulas and other material.
  ◦ 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 www.mafc.mq.edu.au for information on the University’s Disruption to Studies Policy or non-attendance at an examination.

This Assessment Task relates to the following Learning Outcomes:

• The crux of this unit is for students to be able to determine the robustness of cashflow forecasts for a given industry or strategy.
• Develop more advanced modelling and forecasting skills.
• Students should be able to apply a range of credit risk metrics to a series of forecast financial results.
Delivery and Resources

CLASSES

Face-to-Face Teaching: Generally 20 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.mafc.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:

- The Unit’s iLearn site, 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

Background Text:

- You are not required to buy latest editions of these books; whatever you used when you did the prerequisite will be sufficient

Additional Readings:

- The unit notes make reference to additional downloadable material on the iLearn. This is for students interested in following up particular aspects in greater detail.
- Students should assume these additional readings are not examinable unless otherwise advised.

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

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-
course-materials1/. Students should work through this material prior to commencing the degree. The material will remain a useful reference as students progress through the program.


Calculators:

- A financial calculator that can handle time value of money calculations, logs and power functions is required.
- The Hewlett Packard calculator hp17bII+ is recommended.
- In examinations, hand held calculators are permitted. Mobile phones and computers are not permitted.

Assumed Knowledge: Mathematical content

- This Unit relies heavily on present value techniques. Students should be able to use the general formula for calculating the present value of a series of cash flows, as shown below:

\[
\text{Present Value} = \sum_{t=0}^{n} \left( \frac{\text{Cashflow}_t}{(1 + K_t)^t} \right)
\]

as well as alternate expressions for calculating the present value of a series of cash flows using perpetuities and annuities. You should review Chapter 4 of the textbook if you are not comfortable with this material.

- 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:

\[
\text{Solve for } Z_5: \$1,000 = \$681.20 (1 + Z_5/2)^{10}
\]

- 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: [http://www.mafc.mq.edu.au/applications/minimum-knowledge-requirement/pre-course-materials1/](http://www.mafc.mq.edu.au/applications/minimum-knowledge-requirement/pre-course-materials1/)

Assumed Access:

- Access to a computer with word processing and spreadsheet capability is assumed, as is general computer literacy.

**TECHNOLOGY USED AND REQUIRED**

Unit iLearn Site:
Found by logging on to iLearn ilearn.mq.edu.au, then clicking on Investment and Credit Analysis. This is where you will find forums, downloadable resources and links to important pages. The forum allows you to communicate with other students and lecturer(s) and may provide supplementary material. You are requested to post your questions on the forums at least 24 hours prior to the assignment submission date or the 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 the Unit’s iLearn site.
- Students should check the Unit’s iLearn site 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

TOPIC 1: INDUSTRY AND STRATEGIC ANALYSIS

- **Smit and Trigeorgis** (2004), Strategic Investments: Real Options and Games, Part 1, p3-33, and p39.

The financial performance of any business is inextricably linked to the strategic and operating decisions of management and the industry structure in which the firm exists. This topic is designed to provide an overview of industry and corporate strategy. The aim of this topic is to
review several broad frameworks of strategic analysis in order to provide context to financial analysis and forecasting.

- A framework of how management decisions translate to financial performance and corporate value will be examined.
- The subject will include an overview of Porter’s model of industry strategic analysis and Porter’s value chain analysis. However, it is often difficult to translate a Porter analysis into a detailed investment analysis.
- The subject will then review operation strategy within the context of broader industry position and how this translates into operational and financial performance. A review of the Product/Process matrix will lead into the next topic, Financial Statement Analysis, by describing the nature of operating decisions given a company’s chosen strategy.

**TOPIC 2: FINANCIAL STATEMENT ANALYSIS**

- **Supplementary Reading: Ross, Westerfield & Jaffe**, *Corporate Finance*, 9th Edition, Ch 2 Financial Statements and Cashflow (p20-34) and Ch 3 Financial Statement Analysis (p44-76).
  - NB. Students should possess this text from Corporate Finance where this Chapter was covered in CF Topic 4.
- Sample Company Presentation - Western Digital Corporation.

Topic 2 will provide the basis for more detailed review of financial performance of an enterprise. Students should re-familiarise themselves with the financial statement analysis conducted in Core Corporate Finance. The topic will build on prior FSA skills to be applied across different settings in Topic 3.

- A brief overview of cashflow analysis and financial statements will be provided as a refresher.
- A detailed review of the components of the income statement (breakdown of gross margin, COGS vs SG&A, fixed and variable costs) and working capital will be conducted.
- A more detailed Du Pont review will be conducted including sensitivity of outputs to differences in operating strategy.
Note: Students are encouraged to source ratio definitions from several texts as terminology may vary.

**TOPIC 3: MATCHING STRATEGY TO FINANCIAL PERFORMANCE**

- Sample blind financial statements and related ratios including one paired set from same industry

Topic 3 follows Industry Analysis and Competitive Strategy analysis from Topic 1. A brief overview of Operating Strategy will be conducted followed by a series of blind case examples to match financial performance across various industry groupings and company strategies.

- This topic will bridge financial performance and strategy
- The product/process matrix and financial performance will be examined.
- Industry case studies of FMCG, transport, industrial and other companies will be reviewed.

**TOPIC 4: ROBUST FINANCIAL MODELLING**

  - NB. Students should possess this text from Corporate Finance Additional Recommended: Introductory text in econometrics or statistics

DCF modelling is an often underappreciated tool due to its dependency on key inputs. Modelling involves more than extrapolating past historical performance and financial relationships. In addition to industry and strategic factors, advanced, reliable modelling requires identification of key value drivers and extrapolation of those relationships. This topic is designed to take students beyond static modelling to encompass a more dynamic - realistic - industry and company environment.

Topic 4 will cover:
• Advanced financial projections and modelling of key relationships
• Macroeconomic top down forecasting
• Understanding the modelling process and importance of the integrated financial model
• Value Driver Trees
• Improving the robustness of the model and reality checks

TOPIC 5: EQUITY VALUATION ANALYSIS

• **Gu and Wu**, *Earnings skewness and analyst forecast bias*, Journal of Accounting and Economics 35, 5-29.

**DISCLAIMER:** A number of equity broker reports will be used in this topic. These are not to be construed as investment recommendations and are for illustrative purposes only.

This topic will look at the functions of an equity analyst with a focus on applying the checks and balances discussed in Topic 4 on a financial model. The topic will review the components of actual analysts reports by way of example.

Students will:

• Review components of an equity valuation analysis.
• Link in use of DCF vs market multiples between short term trading and long term investment valuation focus.
• Examine ROIC over time under sensitivity and scenario analysis.
• Discuss funding risks and link back to capital structure strategy from Corporate Finance.

TOPIC 6: RISK TO CASHFLOWS AND CREDIT ANALYSIS

• **Standard & Poors**, *2008 Corporate Criteria: Analytical Methodology*, April 15, 2008, 983195 | 301932338
Learning and Teaching Activities

Strategy
The Master in 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 Policy Central. Students
should be aware of the following policies in particular with regard to Learning and Teaching:

- Standard & Poors, Methodology: Business Risk/Financial Risk Matrix Expanded,
  September 18 2012, 1012975 | 301932338.
  Number: 91730.
  Number: 129387.

Topic 6 examines analysis of risk to cashflows. The topic examines particular ratios related to
debt covenants and measures of potential credit risk or default. A review of rating agency
methodology and credit protection mechanisms will be provided. A discussion on the balance
between equity and credit demands, and the impact on strategy and industry structure will round
out the topic.

- Financial ratios, default prediction and credit scores and ratings.
- Credit related concept of risk and calculation of credit specific ratios.
- Role and background of rating agencies.
- Discuss some of the protections to debt capital.
- Linkages between credit risk, strategy and industry framework.


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


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

Students should also consult the MAFC Program Rules & Procedures found at [http://www.mafc.mq.edu.au](http://www.mafc.mq.edu.au)

**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**
Graduate Capabilities

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

- The crux of this unit is for students to be able to determine the robustness of cashflow forecasts for a given industry or strategy.
- Develop more advanced modelling and forecasting skills.
Students should be able to apply a range of credit risk metrics to a series of forecast financial results.

Assessment tasks
- Pre course Assignment
- Assignment
- Final Exam

PG - Capable of Professional and Personal Judgment and Initiative
Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes
- The crux of this unit is for students to be able to determine the robustness of cashflow forecasts for a given industry or strategy.
- Develop more advanced modelling and forecasting skills.
- Students should be able to apply a range of credit risk metrics to a series of forecast financial results.

Assessment tasks
- Pre course Assignment
- 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
- The crux of this unit is for students to be able to determine the robustness of cashflow forecasts for a given industry or strategy.
- Develop more advanced modelling and forecasting skills.
Students should be able to apply a range of credit risk metrics to a series of forecast financial results.

**Assessment tasks**

- Pre course Assignment
- Assignment
- Final Exam

**PG - Engaged and Responsible, Active and Ethical Citizens**

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues.

This graduate capability is supported by:

**Learning outcomes**

- The crux of this unit is for students to be able to determine the robustness of cashflow forecasts for a given industry or strategy.
- Develop more advanced modelling and forecasting skills.
- Students should be able to apply a range of credit risk metrics to a series of forecast financial results.

**Assessment tasks**

- Pre course Assignment
- Assignment
- Final Exam

**Changes from Previous Offering**

The learning outcomes section of the unit guide was updated in March 2016.

**Important Notice**

This Unit Guide may be subject to change. The latest version is on the Centre’s web site [www.mafc.mq.edu.au](http://www.mafc.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 [http://www.mq.edu.au/policy/docs/grading/policy.html](http://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 must pass the final examination.
- 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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Distinction</td>
<td>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.</td>
</tr>
<tr>
<td>Distinction</td>
<td>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.</td>
</tr>
<tr>
<td>Credit</td>
<td>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.</td>
</tr>
<tr>
<td>Pass</td>
<td>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.</td>
</tr>
<tr>
<td>Fail</td>
<td>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.</td>
</tr>
</tbody>
</table>

**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/](http://www.mq.edu.au/policy/)