

AFCP854

Investment and Credit Analysis

AFC Term 3 City 2019

Department of Applied Finance

Contents

General Information	2
Learning Outcomes	2
General Assessment Information	3
Assessment Tasks	3
Delivery and Resources	6
Unit Schedule	7
Learning and Teaching Activities	12
Policies and Procedures	12
Graduate Capabilities	14
Important Notice	15

Disclaimer

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General Information

Unit convenor and teaching staff Lecturer Roland Winn roland.winn@mq.edu.au Contact via Email

Credit points 2

Prerequisites

(Admission to MAppFin or MAppFin(Adv) or GradDipAppFin) and (AFCP801 or ECFS866)

Corequisites

Co-badged status

Unit description

This aim of this unit is to improve students' decision-making around financial forecasts or understanding key value drivers in financial models. The course is designed for students who are required to assess or build financial statements or models including equity and credit analysis, banking, consulting or a corporate finance function. 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 course tests students' abstract reasoning and critical thinking whilst improving their financial modelling skills.

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:

Develop skills in analysing and appraising cash flow for a given industry or strategy, as

an individual, and in the group context.

Develop advanced modelling and forecasting skills.

Apply a range of credit risk metrics in financial analysis.

General Assessment Information

To pass this unit the student needs to (1) Achieve an aggregate mark of 50 or more, and; (2) Pass the Final Exam.

Assessment Tasks

Name	Weighting	Hurdle	Due
Pre-course Assignment	15%	No	At First Class
Assignment	35%	No	Refer to iLearn
Final Exam	50%	Yes	Refer to Timetable

Pre-course Assignment

Due: At First Class Weighting: 15%

Summary of Assessment Task

Individual / Group: Individual.

Due Date: At first class.

Submission Method: In class.

Duration: Refer to Assignment Coversheet.

Extension Requests:

- No extensions will be granted.
- There will be a deduction of 10% of the total available marks for each 24 hour period or part thereof. This penalty does not apply for cases in which an application for Special Consideration has been made and approved.
- No submission will be accepted after solutions have been discussed or posted by the lecturer. As this normally occurs on day 2 of classes, students need to be aware that submissions are rarely accepted beyond the first 24 hour late period.
- Note: Applications for Special Consideration must be made within 5 (five) business days of the due date and time.
- Refer to MAFC Program Rules at https://mafcstudents.mq.edu.au/ for information on the University's Special Consideration Policy.

Other Information: Pre-course assignment will involve review of material from prerequisite

subjects and is available on iLearn.

On successful completion you will be able to:

- Develop skills in analysing and appraising cash flow for a given industry or strategy, as an individual, and in the group context.
- Develop advanced modelling and forecasting skills.

Assignment

Due: Refer to iLearn Weighting: 35%

Summary of Assessment Task

Individual / Group: Either as Individual or Group.

Due Date: Refer to iLearn.

Submission Method: Via Turnitin on iLearn.

Duration: Refer to Assignment Coversheet.

Extension Requests:

- No extensions will be granted. 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 incurs a 20% penalty). This penalty does not apply for cases in which an application for Special Consideration is made and approved.
- Late submissions will be accepted up to 96 hours after the due date and time.
- Note: Applications for Special Consideration must be made within 5 (five) business days of the due date and time.
- Refer to MAFC Program Rules at https://mafcstudents.mq.edu.au/ for information on the University's Special Consideration Policy.

Other Information:

- Case Study will be available on iLearn.
- Cases are typically a detailed investment analysis report requiring equity and credit analysis within a particular strategic context.

On successful completion you will be able to:

• Develop skills in analysing and appraising cash flow for a given industry or strategy, as an individual, and in the group context.

• Develop advanced modelling and forecasting skills.

Final Exam

Due: Refer to Timetable

Weighting: 50%

This is a hurdle assessment task (see <u>assessment policy</u> for more information on hurdle assessment tasks)

Summary of Assessment Task

Individual / Group: Individual.

Due Date: Refer to Timetable.

Submission Method: As per MAFC Program Rules at https://mafcstudents.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 https://www.mq.edu.au/about/about-the-university/faculties-and-departments/business/study-with-us/macquarie-applied-finance-centre/timetables.
- Refer to MAFC Program Rules at https://mafcstudents.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 https://www.mq.edu.au/about/about-the-university/faculties-and-departments/business/study-with-us/macquarie-applied-finance-centre/timetables.
- Deferral of an examination is not permitted unless an application for Special Consideration is made and approved.
- Students who do not attend receive a mark of zero. This penalty does not apply in cases where an application for Special Consideration has been made and approved.
- Note: Applications for Special Consideration must be made within 5 (five) business days of the due date and time.
- Refer to MAFC Program Rules at https://mafcstudents.mq.edu.au/ for information on the University's Special Consideration Policy.

On successful completion you will be able to:

- Develop skills in analysing and appraising cash flow for a given industry or strategy, as an individual, and in the group context.
- Develop advanced modelling and forecasting skills.
- Apply a range of credit risk metrics in financial analysis.

Delivery and Resources

CLASSES

Face-to-Face Teaching: Generally 20 hours.

Timetable: Detailed timetable for classes are available at https://www.mq.edu.au/about/about-th e-university/faculties-and-departments/business/study-with-us/macquarie-applied-finance-centre/ timetables.

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:

- Bodie, Kane & Marcus, Investments, McGraw-Hill/Irwin, 9th edition ISBN 978-0-07-353070-3.
- Ross, Westerfield & Jaffe, Corporate Finance, McGraw-Hill/Irwin, 10th edition 2013 (ISBN 9780078034770) (RWJ).

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

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://mafcstudents.mq.edu.au/new-to-mafc/pre-course-materials/. 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: Supplementary Not Required: Koller, Goedhart, Wessels (2010), Valuation: Measuring and Managing the Value of Companies, Wiley, 5th Edition.

Calculators:

- A scientific calculator or 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 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 <u>ilearn.mq.edu.au</u>, then clicking on AFCP854 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:

- It is important that you familiarise 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

• Koller, Goedhart, Wessels (2010), Valuation: Measuring and Managing the Value of

Companies, Wiley, 5th Edition, Ch4 Return on Invested Capital, p59-80 (Refer to as KGW)

- McGahan, How Industries Change, Harvard Business Review October 2004, p87-94
- **Porter (1985)**, *Competitive Advantage: Creating and Sustaining Superior Performance*, Free Press, 2004 Export Edition, pp4-12, 36-48, 67-70
- Grinblatt & Titman, Financial Markets and Corporate Strategy, McGraw-Hill International, 1998, Ch17, How Managerial Incentives Affect Financial Decisions, p605-615
- Additional Reading: 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

- Koller, Goedhart, Wessels (2010), Valuation: Measuring and Managing the Value of Companies, Wiley, 5th Edition, Ch8 Analysing Performance (p165-173)
- A. Damodaran, Leases, *Debt and Value*, Working Paper, Stern School of Business (April 2009)
- Sherman & Young, Tread Lightly Through These Accounting Minefields, Harvard Business Review, July-August 2001, p129-135
- Article: https://www.afr.com/brand/chanticleer/disclosure-at-heart-of-vgis-short-attack-oncorporate-travel-management-20181028-h177ul
- Additional Reading: Ross, Westerfield & Jaffe, *Corporate Finance*, 10th Edition, Ch 2 Financial Statements and Cashflow (p20-34) and Ch 3 Financial Statement Analysis

(p44-76)

- NB. Students should possess this text from ECFS866 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 in case framework and across different settings in Topic 3.

- A brief refresher of cash flow analysis and financial statements will be provided.
- 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. <u>Topic 2, paired with in-class workshop exercises in</u> <u>Topic 3, will be critical for the course</u> objective in building financial analysis skills.
- Key accounting minefields will be reviewed. Accounting metrics with significant discretion in estimation or possibility of misinterpretation will be examined.
- Note: Students are encouraged to source ratio definitions from several texts as terminology may vary.

TOPIC 3: MATCHING STRATEGY TO FINANCIAL PERFORMANCE

- **Chew**, *The New Corporate Finance: Where Theory Meets Practice*, McGraw-Hill 2nd Edition, Section II. Corporate Strategy and Structure, p101-118, 127-139
- B. Henderson, Cash Traps, The Boston Consulting Group, Perspectives Reprint No. 106
- B. Henderson, *The Experience Curve*, The Boston Consulting Group, Perspectives Reprint No.124
- Sample blind financial statements and related ratios including one paired set from same industry

Topic 3 combines industry and competitive strategy analysis from Topic 1 and financial statement analysis from Topic 2. This is a practical, "hands-on" topic using real company information. A brief overview of Operating Strategy will be conducted followed by a series of workshop exercises using blind case examples to match financial performance across various industry groupings and company strategies.

- The aim of this topic is to help students forecast under uncertainty.
- This topic will bridge financial performance and strategy.
- The linkage between the product/process matrix and financial performance will be examined.

- A number of real-world industry case studies of FMCG (Fast Moving Consumer Goods), transport, industrial and other companies will be reviewed.
- <u>Participation in workshop discussion will be essential for students to consolidate the</u> <u>investment analysis skills required for this course.</u>

TOPIC 4: ROBUST FINANCIAL MODELLING

- Beninga & Sarig, Corporate Finance: A Valuation Approach, McGraw-Hill 1997, Ch4-5, p109-132, 134-154
- Australian Bureau of Statistics, Statistical Language, http://www.abs.gov.au/websited bs/a3121120.nsf/home/statistical+language.
- Fama & French, *Forecasting Profitability and Earnings*, Journal of Business Vol 73 No.2 (2000), p161-175
- **Supplementary Revision**: Ross, Westerfield & Jaffe, Corporate Finance, 10th Edition, Ch 4 DCF Valuation (p87-134)
- 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

- Chew, The New Corporate Finance, McGraw-Hill 2nd Edition, reprint of Stern Stewart Roundtable on Relationship Investing and Shareholder Communication, New York, p73-100
- Chen, Harford, and Lin, Do financial analysts play a monitoring role? Evidence from Natural Experiments, Working Paper, The Chinese University of Hong Kong and University of Washington
- Gu and Wu, Earnings skewness and analyst forecast bias, Journal of Accounting and

Economics 35, 5-29

Available on Web: Muddy Waters Research, Sino-Forest Corporation Report, 2 June 2011

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

- Hull, J., Predescu, M., White, A. The relationship between credit default swap spreads, bond yields, and credit rating announcements, Journal of Banking and Finance, Vol. 28, 2789-2811
- Penman, Financial Statement Analysis and Security Valuation, 3rd Ed, p720-737
- **M. Grinblatt & Sheridan Titman**, *Financial Markets and Corporate Strategy*, McGraw-Hill International, 1998, Ch16, Capital Structure and Corporate Strategy, p577-597 and Ch17, How Managerial Incentives Affect Financial Decisions, p615-629
- Standard & Poors, 2008 Corporate Criteria: Analytical Methodology, April 15, 2008, 983195 | 301932338
- Standard & Poors, Methodology: Business Risk/Financial Risk Matrix Expanded, September 18 2012, 1012975 | 301932338
- Moody's, Rating Methodology: Global Regulated Electric Utilities, March 2005, Report Number: 91730
- Moody's, Rating Methodology: Global Manufacturing Industry, December 2010, Report Number: 129387

Topic 6 examines analysis of risk to cashflows and how credit policy impacts operating performance. 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.

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 term. 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 (https://staff.m q.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-centr al). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy (Note: The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)

Undergraduate students seeking more policy resources can visit the <u>Student Policy Gateway</u> (htt <u>ps://students.mq.edu.au/support/study/student-policy-gateway</u>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (http s://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/p olicy-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/study/getting-started/student-conduct

Results

Results published on platform other than <u>eStudent</u>, (eg. iLearn, Coursera etc.) 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.mq.edu.au</u> or if you are a Global MBA student contact globalmba.support@mq.edu.au

Students should also consult the MAFC Program Rules found at https://mafcstudents.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 enquiries, 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.

Student Enquiries

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

If you are a Global MBA student contact globalmba.support@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 outcomes

- Develop skills in analysing and appraising cash flow for a given industry or strategy, as an individual, and in the group context.
- · Develop advanced modelling and forecasting skills.
- Apply a range of credit risk metrics in financial analysis.

Assessment tasks

- Pre-course Assignment
- 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

- Develop skills in analysing and appraising cash flow for a given industry or strategy, as an individual, and in the group context.
- Develop advanced modelling and forecasting skills.
- Apply a range of credit risk metrics in financial analysis.

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

- Develop skills in analysing and appraising cash flow for a given industry or strategy, as an individual, and in the group context.
- Develop advanced modelling and forecasting skills.
- Apply a range of credit risk metrics in financial analysis.

Assessment tasks

- Pre-course Assignment
- Assignment
- Final Exam

Important Notice

This Unit Guide may be subject to change. Students will be advised, via an "Announcement" on iLearn, if the Unit Guide is changed.

The latest version is available at https://unitguides.mq.edu.au/.

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