



ECFS877

Project Finance

AFC Term 3 CBD 2015

Dept of Applied Finance and Actuarial Studies

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Disclaimer

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General Information

Unit convenor and teaching staff

Lecturer

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Contact via Email

Credit points

2

Prerequisites

(Admission to MAppFin or PGCertAppFin or GradDipAppFin) and ECFS866

Corequisites

Co-badged status

Unit description

This unit examines the business rationale for project finance. a risk system is introduced for the identification and systematic allocation of risk in the various approaches to structuring a project financing. Funding, political-risk structuring, and recent capital-market developments are highlighted in class and through practical case studies. A heavy emphasis is placed on the international character of the project finance industry.

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:

Development of a thorough grounding in the characteristics that make a large scale investment a candidate for Project Finance.

Development of skills to (i) evaluate risks in large scale investments and (ii) to structure transactions in mitigation of those risks.

An ability to make an analytical assessment (including valuations and cash flow modeling) of a proposed investment from the perspective different stakeholders, including lenders, sponsors and investors and other involved parties such as governments.

Exposure to notable contemporary transactions that inform developments in the policy and practice of project and infrastructure funding.

An understanding of sources of finance and the requirements to obtain funding from different providers.

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

Name	Weighting	Due
Classroom/Group Participation	15%	Ongoing
Financial Model & Terms Sheet	35%	Refer to iLearn
Final Exam	50%	Refer to Timetable

Classroom/Group Participation

Due: **Ongoing**

Weighting: **15%**

Summary of Assessment Task

Individual / Group: Individual

Due Date: Ongoing

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

Submission Method: In class

Extension Requests:

- You are expected to make yourself available for assessment.
- If you have extenuating circumstances (such as illness or misadventure) that prevent you from participating, please make arrangements with your Lecturer prior to the due date.
- Unless prior arrangements have been made, a zero mark will apply.

Other Information: Extensive reference material in the notes will be expected to be read in advance and will be the subject of classroom / group participation. Open-book for the entire course. Cold call questions can be asked of you at any time.

On successful completion you will be able to:

- Development of a thorough grounding in the characteristics that make a large scale

investment a candidate for Project Finance.

- Development of skills to (i) evaluate risks in large scale investments and (ii) to structure transactions in mitigation of those risks.
- Exposure to notable contemporary transactions that inform developments in the policy and practice of project and infrastructure funding.
- An understanding of sources of finance and the requirements to obtain funding from different providers.

Financial Model & Terms Sheet

Due: **Refer to iLearn**

Weighting: **35%**

Summary of Assessment Task

Individual / Group: Individual

Due Date: Refer to iLearn

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

Submission Method: Via Turnitin in iLearn

Extension Requests:

- No extensions are permitted.
- If you have extenuating circumstances (such as illness or misadventure) that prevent you from participating, 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:

- There are three components to your assessment: (1) a financial model; (2) a written report; and (3) a Terms Sheet.
- Your model should be built in MS Excel. Your written report and Terms Sheet should be Word documents.
- All information required for this assignment is provided in the question paper, with the exception of forward interest rates, which may be sourced on-line through financial websites such as Bloomberg.
- Submit your work via turnitin and ensure you keep your own copy.

On successful completion you will be able to:

- Development of a thorough grounding in the characteristics that make a large scale investment a candidate for Project Finance.
- Development of skills to (i) evaluate risks in large scale investments and (ii) to structure transactions in mitigation of those risks.
- An ability to make an analytical assessment (including valuations and cash flow modeling) of a proposed investment from the perspective different stakeholders, including lenders, sponsors and investors and other involved parties such as governments.

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:

- 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.

Other Information:

- Please submit your completed assignment via turnitin one week before the Final Exam
- The final exam is Open Book.
- The Final Examination will be in two parts: Multiple choice (35%); and Cases/Essays

(65%).

- The exam Case will be available via iLearn one week in advance of the final exam.
- An exam booklet will be provided.
- Checklist for Open-Book Final Exam:
 - Unit Binder
 - Unit notes
 - Calculator. Permitted calculators are noted under 'Calculators' below.
- NOTE: Laptop computers are not permitted.

On successful completion you will be able to:

- Development of a thorough grounding in the characteristics that make a large scale investment a candidate for Project Finance.
- Development of skills to (i) evaluate risks in large scale investments and (ii) to structure transactions in mitigation of those risks.
- An ability to make an analytical assessment (including valuations and cash flow modeling) of a proposed investment from the perspective different stakeholders, including lenders, sponsors and investors and other involved parties such as governments.
- Exposure to notable contemporary transactions that inform developments in the policy and practice of project and infrastructure funding.
- An understanding of sources of finance and the requirements to obtain funding from different providers.

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

Consultation Times: Students who wish to contact any of the teaching staff may do so through individual consultation with the lecturer by email in the first instance, if necessary.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Text: Nil

Additional Readings:

- The Unit notes contain all the requisite reading material for the classes, class

assignments, final examination, and case studies, as well as the lecturer's slides, background articles, and reference material/glossary.

- **Students should assume these readings are 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.
- By the first class, Students must have read the designated pre-course materials included and referenced in the course binder.

Slides: Copies of lecture slides will be posted to iLearn after each session.

Useful References:

- Brealey & Myers, *Principals of Corporate Finance*, 7th Edition or later
- Tinsley, *Advanced Project Financing: Structuring Risk*, 2nd Ed., Euromoney Books, London, 2014
- Tinsley, *Practical Introduction to Project Finance*, DCGardner/Euromoney Workbook, 2nd Ed., London, 2000.
- Fabozzi & deNahlik, *Project Financing*, Euromoney, 8th Ed., London, 2012.
- There are books available to help develop your Excel skills, which are needed for assignments. Two helpful books are:
 - Craig W. Holden, *Excel Modelling in Corporate Finance*, 2nd ed., Pearson Prentice Hall, 2005; or
 - Michael Rees, *Financial Modelling in Practice*, Wiley, 2008.

Calculators: Any ordinary calculator will be sufficient for classwork and the Final Exam.

Assumed Knowledge:

- ECFS 866 Corporate Finance is a pre-requisite.
- Basic Excel modeling.
- 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/>

Assumed Access: Access to a computer with word processing and spreadsheet capability is

assumed, as is general student computer literacy.

TECHNOLOGY USED AND REQUIRED

Unit iLearn Site:

- Found by logging on to iLearn ilearn.mq.edu.au, then clicking on **Project Finance**.
- This is where you will find forums, downloadable resources and links to important pages.

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

UNIT DESCRIPTION

- Large Scale Investments are challenging to value, risk manage, structure and finance. Typical examples include economic and social infrastructure such as toll roads or hospitals, tunnels, mines and petroleum developments.
- Project Finance is the discipline of crafting bespoke financial structures to meet the needs of stakeholders including equity and debt investors, host governments, suppliers, consumers and affected communities to enable finance for LSIs to be raised.
- This course examines Project Financing's rationale and methodologies through case studies, readings, lectures and class discussions.
- Four main themes run through the course: Valuing Projects, Structuring Projects, Managing Risk in Projects and Financing Projects.
- A major assignment allows students to develop skills in project evaluation through financial modeling and deal structuring.
- Case studies develop critical thinking and illustrate how the different stakeholders (sponsors, lenders, hosts and community) see value and risk in a transaction.
- Funding, risk structuring and recent transactions are highlighted in class and through practical case studies.

SESSION 1

Topics:

- Introduction to Project Finance and Large Scale Investments

- Course plan, expectations & assessments
- Defining 'Project Finance'
- Sectors, scope and scale
- Structure & Risk
 - The stakeholders
 - Identifying risks
 - Structuring consequences of risk allocations

SESSION 2

Topics:

- Valuing Projects
 - DCF analysis
 - Banking analysis: CF ratios and debt sizing
 - Financial models
 - Introduction to modeling assignment – “Newly Optimistic Oil Limited”

Case:

- BrisConnections (A): The Vested Interests of an Australian Toll Road

SESSION 3

Topics:

- Managing Risky Projects
 - Avoiding failure – Discussion based on assigned readings
 - Due diligence
 - Equator principals
 - International projects

Case:

- Aquasure: Victorian Desalination Project

SESSION 4

Topics:

- Financing Projects
- Sources of Funds
 - Equity investors/sponsors
 - Debt investors/banks and specialised lenders
 - Capital markets

- Governments and multilateral bodies

SESSION 5

Topics:

- Transaction Lifelines and Tools
 - Information memorandum
 - Terms sheets

Case:

- The Sydney Cross City Tunnel

SESSION 6

Topics:

- Practice & Review
 - Group presentation
 - Class quiz
 - Revision

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 [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/

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.

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 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 <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 - 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

- Development of a thorough grounding in the characteristics that make a large scale investment a candidate for Project Finance.
- Development of skills to (i) evaluate risks in large scale investments and (ii) to structure transactions in mitigation of those risks.
- An ability to make an analytical assessment (including valuations and cash flow modeling) of a proposed investment from the perspective different stakeholders, including lenders, sponsors and investors and other involved parties such as

governments.

- Exposure to notable contemporary transactions that inform developments in the policy and practice of project and infrastructure funding.
- An understanding of sources of finance and the requirements to obtain funding from different providers.

Assessment tasks

- Classroom/Group Participation
- Financial Model & Terms Sheet
- 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

- Development of a thorough grounding in the characteristics that make a large scale investment a candidate for Project Finance.
- Development of skills to (i) evaluate risks in large scale investments and (ii) to structure transactions in mitigation of those risks.
- An ability to make an analytical assessment (including valuations and cash flow modeling) of a proposed investment from the perspective different stakeholders, including lenders, sponsors and investors and other involved parties such as governments.
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- An understanding of sources of finance and the requirements to obtain funding from different providers.

Assessment tasks

- Classroom/Group Participation
- Financial Model & Terms Sheet
- 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

- Development of a thorough grounding in the characteristics that make a large scale investment a candidate for Project Finance.
- Development of skills to (i) evaluate risks in large scale investments and (ii) to structure transactions in mitigation of those risks.
- An ability to make an analytical assessment (including valuations and cash flow modeling) of a proposed investment from the perspective different stakeholders, including lenders, sponsors and investors and other involved parties such as governments.
- Exposure to notable contemporary transactions that inform developments in the policy and practice of project and infrastructure funding.
- An understanding of sources of finance and the requirements to obtain funding from different providers.

Assessment tasks

- Classroom/Group Participation
- Financial Model & Terms Sheet
- 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

- Development of a thorough grounding in the characteristics that make a large scale investment a candidate for Project Finance.
- Development of skills to (i) evaluate risks in large scale investments and (ii) to structure

transactions in mitigation of those risks.

- An ability to make an analytical assessment (including valuations and cash flow modeling) of a proposed investment from the perspective different stakeholders, including lenders, sponsors and investors and other involved parties such as governments.
- Exposure to notable contemporary transactions that inform developments in the policy and practice of project and infrastructure funding.
- An understanding of sources of finance and the requirements to obtain funding from different providers.

Assessment tasks

- Classroom/Group Participation
- Financial Model & Terms Sheet
- Final Exam

Changes from Previous Offering

The Learning Outcomes, Unit Outline and Assessment sections of this Unit Guide was updated in July 2015.

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>. 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:

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/docs/gradeappeal/policy.html> and MAFC Program Rules & Procedures at <http://www.mafc.mq.edu.au>.