

ACST8029

Capital Budgeting and Financial Modelling

Session 1, Weekday attendance, North Ryde 2020

Department of Actuarial Studies and Business Analytics

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General Information

Unit convenor and teaching staff

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Credit points

10

Prerequisites

ACST603 or ACST6003 or admission to MActPrac

Corequisites

Co-badged status

Unit description

This unit covers established methods for the valuation and appraisal of investment projects and related financial decisions. It also covers the new 'real options approach' to investment appraisal, including the application of exotic options pricing formulae to real options using Microsoft Excel to build financial models, and introducing students to Visual Basic/Excel macros for financial modelling.

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:

ULO1: Understand current established methods for the valuation and appraisal of investment projects, their advantages and disadvantages and the development of financial models for this purpose.

ULO2: Build the financial models and perform the calculations to implement these methods using microsoft excel.

ULO3: Demonstrate an introductory understanding of the "real options approach" to investment appraisal.

ULO4: Document a financial decision making problem and its solution using spreadsheet software and communicate the results to interested stakeholders.

Assessment Tasks

Coronavirus (COVID-19) Update

Assessment details are no longer provided here as a result of changes due to the Coronavirus (COVID-19) pandemic.

Students should consult iLearn for revised unit information.

Find out more about the Coronavirus (COVID-19) and potential impacts on staff and students

General Assessment Information

Gradebook

It is the responsibility of students to view their marks for each within session assessment on iLearn within 20 working days of posting. If there are any discrepancies, students must contact the unit convenor immediately. Failure to do so will mean that queries received after the release of final results regarding assessment marks (not including the final exam mark) will not be addressed.

Special Consideration

Where a Special Consideration application is approved, the student may be offered an alternative assessment or may receive a mark based on the percentage mark achieved by the student in one or more other assessment tasks, at the Unit Convenor's discretion.

Late Penalties

Tasks 10% or less – No extensions will be granted. Students who have not submitted the task prior to the deadline will be awarded a mark of 0 for the task, except for cases in which an application for special consideration is made and approved.

Tasks above 10% - 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 – 20% penalty). This penalty does not apply for cases in which an application for special considereation is made and approved. No submission will be accepted after solutions have been posted.

Delivery and Resources

Coronavirus (COVID-19) Update

Any references to on-campus delivery below may no longer be relevant due to COVID-19. Please check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

A 3 hour combined lecture / tutorial / computer lab session will be held each week. In some weeks this will be mostly lecture content and in others mostly practical / spreadsheet modeling exercises.

Unit Schedule

Coronavirus (COVID-19) Update

The unit schedule/topics and any references to on-campus delivery below may no longer be relevant due to COVID-19. Please consult <u>iLearn</u> for latest details, and check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

Weekly Topics Covered:

- 1. Introduction to excel, introductory financial mathematics & functions. Translating mathematical formulae into excel code. Application to pricing bonds and bills. Excel implementation.
- 2. Further topics in financial mathematics. Amortizing loans, annuities, leases & bonds. Excel implementation.
- 3. Introduction to capital budgeting. Project cashflows and methods for their estimation
- 4. Elementary methods of forecasting. Matrix algebra and applications. Implementation in excel.
- 5. Project appraisal using NPV, IRR, ARR, PP and other methods. Excel implementation
- 6. Methods for estimating model parameters, Sensitivity and breakeven analysis. Case Studies
- 7. Class test
- 8. Introduction to options and valuation via the Black Scholes model.
- 9. Binomial option pricing methods and implementation in excel.
- 10. Monte Carlo simulation modelling and financial applications.
- 11. The "real options approach" to valuation of projects.
- 12. Case Studies
- 13. Case Studies and revision

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.m.g.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). 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.)

Students seeking more policy resources can visit the <u>Student Policy Gateway</u> (https://students.m <u>q.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 (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/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/study/getting-started/student-conduct

Results

Results published on platform other than eStudent, (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 eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@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 help you improve your marks and take control of your study.

- · Getting help with your assignment
- Workshops
- StudyWise
- Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- · Subject and Research Guides
- · Ask a Librarian

Student Services and Support

Students with a disability are encouraged to contact the <u>Disability Service</u> 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 http://www.mq.edu.au/about_us/ 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.

Changes since First Published

Date	Description
07/02/2020	Minor changes to general assessment information.