AFIN890

Corporate Financial Modelling and Forecasting

S1 Day 2015

Dept of Applied Finance and Actuarial Studies

Contents

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General Information

Unit convenor and teaching staff
Unit Convenor
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Angela Chow
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Credit points
4

Prerequisites
ACST603 or AFIN858 or (4cp in ACCG or ACST or BUS or MKTG units at 600 level)

Corequisites

Co-badged status

Unit description
This course applies financial modelling and forecasting principles to various methods and theories covered in the corporate finance and financial statement analysis fields. This is an excellent course for students with an interest in a career in corporate finance or financial statement analysis, and combines well with the other Masters units in those fields. The modelling and forecasting principles covered in this course are not simply an application of extrapolative techniques to historical data. Rather, there is an emphasis on modelling the uncertainty, and alerting decision makers, of corporate change as the forecast horizon increases. Corporate Modelling and Financial Forecasting is very much a hands-on course, with the seminars conducted in the computer laboratories. The Lectures use worked examples throughout, requiring students to be at computer terminals with access to excel and industry standard simulation packages. The worked examples are designed to reinforce the financial modelling and forecasting principles covered in the course.

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:

Capacity to build a financial simulation model, using assumptions to simplify relationships and to put those relationships into equation form.

Ability to apply both traditional and modern time series methods in forecasting pro forma financial statements, using firm specific, industry, and global information.

Understand the effects of uncertainty on financial models and be able to include these effects in their modeling.

Recognise the limitations and biases often encountered in financial forecasts, and link these to characteristics of the market.

Apply various finance theories in modeling share prices, investment, debt, mergers and acquisition, and financial distress.

Ability to document and describe a complex model in simple and credible terms, understandable by decision makers.

General Assessment Information

It is the responsibility of students to view their marks for each within session assessment on iLearn within 20 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 tasks (not including the final exam mark) will not be addressed

Assessment Tasks

Name	Weighting	Due
Minor Test	10%	Week 4
Major Tests	60%	Weeks 8,13
Presentation	15%	Allocated week
Assessed Coursework	15%	Week 4, 8, 12

Minor Test

Due: **Week 4**
Weighting: **10%**

The 1 hour in-class Minor Test will be a hands-on exercise conducted on the lab computers and based on one or more similar exercises encountered in the material from weeks 1 to 3. Students can only take up to 10 A4 pages of hand written notes, double sided, into the test. These notes are to be in your own hand writing, and are not to be photo-copies or reduced.

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.

On successful completion you will be able to:

- Capacity to build a financial simulation model, using assumptions to simplify relationships and to put those relationships into equation form.
- Ability to document and describe a complex model in simple and credible terms, understandable by decision makers.

Major Tests

Due: **Weeks 8,13**
Weighting: **60%**

During the semester there are two Major in-class Tests. Each 1 1/2 hours in-class Test will be a hands-on exercise conducted on the lab computers and based on one or more similar exercises encountered in class. The first in the series is based on the material from weeks 4 to 7 and is held in week 8; the second is based on the material from weeks 8 to 12 and is held in week 13. Each test in the series of two is worth 30%, and the total value of the series is 60%. Students can only take up to 10 A4 pages of hand written notes, double sided, into the test. These notes are to be in your own hand writing, and are not to be photo-copies or reduced.

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.

On successful completion you will be able to:

- Capacity to build a financial simulation model, using assumptions to simplify relationships and to put those relationships into equation form.
- Ability to apply both traditional and modern time series methods in forecasting pro forma financial statements, using firm specific, industry, and global information.
- Understand the effects of uncertainty on financial models and be able to include these effects in their modeling.
- Ability to document and describe a complex model in simple and credible terms, understandable by decision makers.

Presentation

Due: **Allocated week**
Weighting: **15%**

Students will be placed into groups of 4 initially (this number might need to be adjusted in cases), and these groups will be assigned to a week and end-of-chapter exercises. This will be a hands-

on exercise and the group is expected to upload a solution to the exercise onto iLearn prior to the class, and to demonstrate the solution to the class in a 30 to 45 minute presentation. The presentation should be as interactive as possible. The group should show the steps involved in solving the exercise: interpreting the information given; identifying and estimating relationships; entering both data and equations on the spreadsheet; explaining the assumptions and results to users; etc. The report - soft copies of spreadsheet, word files, and overheads - is worth 10%. A cover sheet on the uploaded report, which will not be disclosed to the class, should weight the contribution of each group member to the Report, summing to 100%. All students must be involved in the presentation as an individual mark, worth 5%, is allocated for each individual's performance in the presentation.

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.

On successful completion you will be able to:
- Capacity to build a financial simulation model, using assumptions to simplify relationships and to put those relationships into equation form.
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- Understand the effects of uncertainty on financial models and be able to include these effects in their modeling.
- Recognise the limitations and biases often encountered in financial forecasts, and link these to characteristics of the market.
- Apply various finance theories in modeling share prices, investment, debt, mergers and acquisition, and financial distress.
- Ability to document and describe a complex model in simple and credible terms, understandable by decision makers.

Assessed Coursework

Due: **Week 4, 8, 12**
Weighting: **15%**

During the Unit three real world applications (case studies) will be discussed in detail during class. Students will be required to summarise the key insights and issues highlighted by each of these applications in no more than four A4 pages per application. These summaries will be completed by students as an individual task - not as group work. The three case studies will be discussed in weeks 3, 7, and 11, and students will submit the summary by the lecture of the week which follows discussion of the case. Students will upload a soft copy (in Word) to TURNITIN through iLearn. No hard copy of the journal is required. Each of the 3 summaries is worth 5%, and the total assessment is worth 15%.

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.

On successful completion you will be able to:

- Understand the effects of uncertainty on financial models and be able to include these effects in their modeling.

- Recognise the limitations and biases often encountered in financial forecasts, and link these to characteristics of the market.

- Apply various finance theories in modeling share prices, investment, debt, mergers and acquisition, and financial distress.

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Delivery and Resources

Classes

The Unit involves 3 hours face-to-face teaching per week consisting of a 3 hour seminar. The class is held in a computer lab allowing a combination of Lecture time and Hands-on activities. The timetable for classes can be found on the University web site at: http://www.timetables.mq.edu.au/

The class is held on Tuesday in Room E4B 214 from 2pm to 5pm.

Required and Recommended Texts and/or Materials

Prescribed

James Morris and John Daley. " Introduction to Financial Models for Management and Planning" ISBN: 9781420090543. Chapman and Hall/CRC Finance Series The prescribed text can be purchased from the Macquarie University Co-op Bookshop.

Recommended

The Flaw Of Averages: Why We Underestimate Risk In The Face Of Uncertainty, Sam Savage,

Probably Not: Future Prediction Using Probability & Statistical Inference. Lawrence Dworsky, John Wiley & Sons, 2008.

Monte Carlo Methods in Finance. Peter Jackel. John Wiley & Sons, 2002. Other resources will be provided through ilearn.

Unit Web Page

The unit Web site is only available to students enrolled in AFIN890. It will be available from Sunday 22nd Feb. Students will be able to access the unit web page by the use of their normal university user/password details. Please contact the IT Help Desk if you have any difficulties accessing the unit web page:

Phone: (02) 9850 HELP (4357)

Option 1 or Freecall: 1800 063 191

Face to Face: IT Help Desk, C5C244 24/7

Email: help@mq.edu.au

The Website will contain important unit materials, including:

- Course details—An outline of the unit, including assessment tasks
- Announcements—notices updating students on important matters regarding the unit.
- Assignment
- Suggested answers and solutions to homework questions
- Results for   assignment and other assessable material.

Learning and Teaching Activities

This is very much a hands-on course. The nature of the material is best learnt by practising the development of models, learning from mistakes, and discovering your own short cuts and styles. For this reason the lectures are conducted in the computer labs with practise exercises interspersed throughout the lecture. Further, the software enables the student to visualise the effect of unertainty on various theoretical relationships in finance, and thus is helpful in enabling a student to understand both the strengths and limitations of corporate finance theories. Given the hands-on nature of the Unit, the majority of the assessment tasks are conducted with the student accessing a computer and relevant software.

Technology Used and Required

The course uses @RISK, possibly the most widely used modelling software in industry.A version of @RISK is installed in the computer lab, and students will be able to access these computers during the class. Students can also access ilab through the internet, running any required program from home. Also, a time limited version of @RISK is attached to the text, if students want to practice at home.

Changes Since Last Offering

1. No final exam. This has been replaced by two major in-class tests. The primary reason for this change is to allow the material to be tested on the computer, using excel and @RISK, complementing the hands-on nature of the Unit.

2. One extra topic on portfolio creation using the software.

Unit Schedule

Week	Week Beg	Topic	Chapter from Morris-Daley
1	Feb 23	Introduction: Modelling and Forecasting	1
2	Mar 2	Financial Analysis	2
3	Mar 9	Growth and Cash Flows CASE STUDY 1 Discussion	3
4	Mar 16	TEST 1 Financial Statement Simulation CASE STUDY 1 SUBMIT	4
5	Mar 23	Monte Carlo Simulation	5
6	Mar 30	Time Trend Simulation Industry and Economy-Wide Relationships	6 and 7
7	Apr 20	Uncertainty and Time Series Properties CASE STUDY 2 DISCUSSION	8
8	Apr 27	MAJOR TEST 1 CASE STUDY 2 SUBMIT	
9	May 4	Modelling Firm Value	9
10	May 11	Modelling Mergers and Acquisitions	10
11	May 18	Debt Financing CASE STUDY 3 DISCUSSION	11
12	May 25	Simulating Security Prices CASE STUDY 3 SUBMIT	13
13	June 1	MAJOR TEST 2	

Unit Schedule

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.

Supplementary Exams Further information regarding supplementary exams, including dates, is available here http://www.businessandeconomics.mq.edu.au/current_students/undergraduate/how_do_i/special_consideration

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 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

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 - 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

- Capacity to build a financial simulation model, using assumptions to simplify relationships and to put those relationships into equation form.
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- Apply various finance theories in modeling share prices, investment, debt, mergers and acquisition, and financial distress.

Assessment tasks

- Minor Test
- Major Tests
- Presentation
- Assessed Coursework

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

- Capacity to build a financial simulation model, using assumptions to simplify relationships and to put those relationships into equation form.
- Ability to apply both traditional and modern time series methods in forecasting pro forma financial statements, using firm specific, industry, and global information.
- Understand the effects of uncertainty on financial models and be able to include these effects in their modeling.
- Apply various finance theories in modeling share prices, investment, debt, mergers and acquisition, and financial distress.

Assessment tasks

- Minor Test
- Major Tests
- Presentation
- Assessed Coursework

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

- Capacity to build a financial simulation model, using assumptions to simplify relationships and to put those relationships into equation form.
- Apply various finance theories in modeling share prices, investment, debt, mergers and acquisition, and financial distress.
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Assessment tasks

- Presentation
- Assessed Coursework

Research and Practice

- This unit uses research from external sources (references)
- This unit gives you practice in applying research findings in your assignments
- This unit gives you opportunities to conduct your own research.

The Assignments and the Report both involve research. You will need to read some academic articles and synthesise those articles in developing your own arguments. There is also an opportunity to scan the media – newspapers, business journals, and other data sources, in doing your own research. In the databases section of the library website, both Business source premier and Factiva are very useful resource tools.