



# MQBS8040

## Quantitative Research Approaches in Business and Economics 2

Session 2, Special circumstance 2020

*Macquarie Business School Faculty level units*

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#### Disclaimer

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#### Notice

As part of [Phase 3 of our return to campus plan](#), most units will now run tutorials, seminars and other small group learning activities on campus for the second half-year, while keeping an online version available for those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face and online activities for your unit, please go to [timetable viewer](#). To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

## General Information

Unit convenor and teaching staff

Roselyne Joyeux

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Contact via email

E4A440

TBA

Credit points

10

Prerequisites

Permission by special approval

Corequisites

Co-badged status

MQBS7040

Unit description

This unit focuses on advanced statistical approaches used in Economics, Finance and related disciplines. By successfully completing this unit, students should be able to develop an econometric model suitable for the objective of their analysis, estimate the model using an appropriate estimation method, and draw valid inferences from the estimation results. Topics include time series analysis, ARCH, GARCH models, panel data models, VAR and VECM models. The unit will also consider applications of the above models and techniques.

## 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:** Demonstrate knowledge of a range of generalizations of regression and how to apply them.

**ULO2:** Assess how linear models, time series models and various generalizations are applied and how empirical results are communicated in practice.

**ULO3:** Estimate and interpret Panel Data Models and Dynamic Panel Data Models.

**ULO4:** Appreciate the relevance and limitations of the econometric methods used.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#">Participation in tutorial</a>	20%	No	All session
<a href="#">Project</a>	40%	No	Week 12
<a href="#">Online mid session test</a>	20%	No	Week 7
<a href="#">Assignment</a>	20%	No	Week 14

### Participation in tutorial

Assessment Type <sup>1</sup>: Participatory task

Indicative Time on Task <sup>2</sup>: 24 hours

Due: **All session**

Weighting: **20%**

Students are required to prepare answers/responses to tutorial questions and participate in discussion.

On successful completion you will be able to:

- Demonstrate knowledge of a range of generalizations of regression and how to apply them.
- Assess how linear models, time series models and various generalizations are applied and how empirical results are communicated in practice.
- Estimate and interpret Panel Data Models and Dynamic Panel Data Models.

### Project

Assessment Type <sup>1</sup>: Project

Indicative Time on Task <sup>2</sup>: 30 hours

Due: **Week 12**

Weighting: **40%**

Students need to choose an economic hypothesis to test, collect the data, build and estimate a model to test this hypothesis. Students will produce a 3,000 word report. The economic/finance motivation should be 2 to 4 pages long including a quick review of applied work in the area.

On successful completion you will be able to:

- Demonstrate knowledge of a range of generalizations of regression and how to apply them.
- Assess how linear models, time series models and various generalizations are applied and how empirical results are communicated in practice.
- Estimate and interpret Panel Data Models and Dynamic Panel Data Models.
- Appreciate the relevance and limitations of the econometric methods used.

## Online mid session test

Assessment Type <sup>1</sup>: Quiz/Test

Indicative Time on Task <sup>2</sup>: 15 hours

Due: **Week 7**

Weighting: **20%**

Short answer questions; 60-minute test covering all of the material up to week 6.

On successful completion you will be able to:

- Demonstrate knowledge of a range of generalizations of regression and how to apply them.
- Assess how linear models, time series models and various generalizations are applied and how empirical results are communicated in practice.

## Assignment

Assessment Type <sup>1</sup>: Quantitative analysis task

Indicative Time on Task <sup>2</sup>: 17 hours

Due: **Week 14**

Weighting: **20%**

This assignment will consist of questions involving quantitative applied and theoretical tasks.

On successful completion you will be able to:

- Demonstrate knowledge of a range of generalizations of regression and how to apply them.
- Assess how linear models, time series models and various generalizations are applied

and how empirical results are communicated in practice.

- Estimate and interpret Panel Data Models and Dynamic Panel Data Models.

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<sup>1</sup> If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the [Writing Centre](#) for academic skills support.

<sup>2</sup> Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

## Delivery and Resources

### Lecture and Tutorial times

- Lectures for MQBS8040 are scheduled as per the class timetable available at <http://www.timetables.mq.edu.au/>
- There will be 3 hours teaching per week consisting of one two-hour lecture and one hour tutorial.
- Lectures and tutorials will be held in the computer labs and online.

### Technology used and required

- If you are enrolled in this unit, you will be listed in the MQBS8040 online unit (iLearn). Login at <http://ilearn.mq.edu.au/>
- The site will be used to post online lectures, lecture slides, handouts, and assignments.
- The site contains a “forum” to which you may contribute. Please log in to the site on a regular basis.
- The main software used in MQBS7040 is Eviews which can be accessed through AppStream

### Required and Recommended Texts and/or Materials

The recommended textbooks for MQBS8040 are:

1. Hill, C. H., Griffiths, W. E. and Lim, G. C. (2018) Principles of Econometrics (5th ed.) Wiley.
2. Wooldridge, J. (2008) Introductory Econometrics: A Modern Approach (4th ed.) Cengage Learning.

A list of prescribed reading will be developed on the website as the unit progresses.

### Teaching and Learning Strategy

- Students are expected to complete all pre-lecture preparation tasks in advance of that particular lecture.
- Please make notes summarizing the pre-lectures readings. These notes do not need to be submitted for assessment; however, they will permit discussion of the questions and material in class.
- Students are expected to attend and participate in all classes.

### Information

Details of the assessment tasks will be given in lectures and posted on iLearn. You should check iLearn regularly.

## Unit Schedule

Week	Topic	Tutorial Topic
1	Stationarity, Integration and ARIMA Models	Introduction to software
2	Testing for bubbles	Computer exercise
3	VAR and VECM	Computer exercise
4	SVAR	Computer exercise
5	Impulse response functions	Computer exercise
6	Impulse response functions	Computer exercise
7	Impulse response functions	Mid term test
<b>Mid</b>	<b>Semester</b>	<b>Break</b>
8	Panel data models	Computer exercise
9	Panel data models	Computer exercise
10	Dynamic Panel data models	Computer exercise
11	Panel unit roots	Computer exercise
12	Panel cointegration	Computer exercise
13	Review	Computer exercise

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](https://staff.mq.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 [Student Policy Gateway \(https://students.mq.edu.au/support/study/student-policy-gateway\)](https://students.mq.edu.au/support/study/student-policy-gateway). 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 \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](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](http://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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](http://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 [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](http://ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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/](http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/).

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.