

IB9X6-15 Quantitative Methods for Finance

26/27

Department

Warwick Business School

Level

Taught Postgraduate Level

Module leader

Cesare Robotti

Credit value

15

Module duration

10 weeks

Assessment

25% coursework, 75% exam

Study location

University of Warwick main campus, Coventry

Description

Introductory description

In this module, students will learn the main econometric techniques for performing cross-sectional, time series, and panel data analyses. Students will be trained to use software to practically implement estimation and testing in the context of the econometrics of financial markets.

[Module web page](#)

Module aims

The module aims to provide students with an in-depth understanding of and key skills in:

1. Basic probability and distribution theory;
2. Basic statistical estimation and inference;
3. Econometric models with applications to finance.

In particular, the module covers classical multivariate linear regression models, models for limited dependent variables, panel data, and time-series modelling.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

Indicative syllabus:

Introduction to probability and statistical inference;

Classical linear regression models;

Introduction to maximum likelihood estimation;

Discrete choice models;

Models for panel data;

Introduction to time-series analysis.

Learning outcomes

By the end of the module, students should be able to:

- Demonstrate complete understanding of the principles behind econometric/ statistical tools
- Demonstrate understanding of which quantitative methods and statistical techniques to apply in most situations when analysing financial data.
- Critically evaluate and replicate empirical studies published in both academic and practitioners journals.

Indicative reading list

[Reading lists can be found in Talis](#)

Subject specific skills

Select the most appropriate modelling specification and econometric setup for any given research question.

Handle various econometric techniques at an intermediate level.

Carry out robust empirical studies and analysis for cross-sectional, time-series and panel data.

Transferable skills

Written communication

Numeracy

Study

Study time

Type	Required
Lectures	10 sessions of 2 hours (13%)
Total	150 hours

Type	Required
Seminars	9 sessions of 1 hour (6%)
Private study	48 hours (32%)
Assessment	73 hours (49%)
Total	150 hours

Private study description

Private study to include preparation for lectures and seminars

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group D5

Assessment component	Weighting	Study time	Eligible for self-certification
Group Project Group Project, 3000 words	25%	18 hours	No
Reassessment component			
Individual Assignment 1000 words			Yes (extension)
Assessment component			
Centrally-timetabled examination (On-campus) Written Examinations 2 hours	75%	55 hours	No

Weighting **Study
time**

**Eligible for self-
certification**

- Answerbook Pink (12 page)
- Students may use a calculator

Reassessment component is the same

Feedback on assessment

Feedback via My.WBS

[Past exam papers for IB9X6](#)

Availability

Courses

Course availability information is based on the current academic year, so it may change.
This module is Core for:

- Year 1 of TIBS-N300 MSc in Finance