Financial Econometrics

Professor: José Olmo
E-mail: J.B.Olmo@soton.ac.uk

Course Description

The course begins with basic concepts from cross-sectional regression analysis and time series. These concepts are paramount for developing more advanced methods for modeling nonstationary data and multivariate financial data. In particular, the course will cover multivariate methods such as Vector Autoregressive (VAR) processes and cointegration analysis for handling systems of variables. Each topic will be illustrated by computer sessions using STATA and real financial data.

Objectives

The objective of the course is to provide students with the econometric and statistical tools needed to carry out empirical analysis in Finance. After completion students will be familiar with the main techniques for modelling financial data, statistically testing financial hypotheses and determining suitable measures to assess credit and market risk.

Methodology

There will be 10 two-hour theory sessions with one-hour classes following each theory session. The theory sessions will develop the course material. The lectures are based on the main textbook and some additional readings that are complemented by slides which highlight the main concepts. Empirical examples will be used to illustrate the methodologies introduced in class using STATA.

The class sessions will teach how to use STATA to apply the techniques introduced in the theory sessions on real datasets. Students will also be assigned problem sets in which they will have to apply the techniques introduced in the lectures.