
Computational Finance and Financial Econometrics using Excel & R

3-Day Professional Development Workshop

East Asia Training & Consultancy Pte Ltd is happy to invite you to attend a three-day highly intensive and comprehensive professional development workshop to computational finance and financial econometrics.

Course Programme

This course is an introduction to data analysis and econometric modeling using applications in finance. Equivalently, this course is an introduction to computational finance and financial econometrics. As such, the course utilizes concepts from microeconomics, finance, mathematical optimization, data analysis, probability models, statistical analysis, and econometrics.

The emphasis of the course will be on making the transition from an economic model of asset return behavior to an econometric model using real data. This involves:

- (1) specification of an economic model;
- (2) estimation of an econometric model;
- (3) testing of the assumptions of the econometric model;
- (4) testing the implications of the economic model;
- (5) forecasting from the econometric model.

The modeling process requires the use of economic theory, probability models, optimization techniques and statistical analysis.

Topics in Financial economics include asset return calculations, portfolio theory, index models, the capital asset pricing model and investment performance analysis.

Topics in Mathematics include optimization methods involving equality and inequality constraints and basic matrix algebra.

Topics in Statistics include probability and statistics (expectation, joint distributions, covariance, normal distribution, sampling distributions, estimation and hypothesis testing etc.) with the use of calculus, descriptive statistics and data analysis, linear regression, basic time series methods, the simulation of random data and resampling methods.

Software

The course will utilize Microsoft Excel for spreadsheet modeling, and R for data analysis and statistical modeling. Excel is included with all version of Microsoft office.

R is a free open-source statistical modeling and graphical analysis language built upon the S language developed at Bell Labs. It can be downloaded from www.r-project.org.

Delegates are required to bring their own laptops with the softwares installed in them.

Fee & Registration

The fee includes extensive course materials, data-sets, lectures, luncheons, morning and afternoon coffee/tea breaks, receptions and the opportunity to network with professionals across the various industries in Asia

The number of participants is restricted. Please register early to guarantee your place. Please complete the official registration form and email it to us at administrator@eastasiatc.com.sg to reserve your place. Confirmation will only be made upon receiving full payment. Further instructions will be sent to confirmed participants.