
Financial Modelling in R

26, 27,30 Nov & 1 Dec, 2015

Time: 17:00—20:30

London

Objectives: Scope and Purpose

This workshop provides an introduction to the statistical software and illustrates some of the basic as well as advanced features. The basic features covered are

- Data analysis and statistics with R
- Import of data sets
- Graphical displays

Advanced features covered are

- Time series modelling and simulation
- Volatility modelling in R
- Portfolio optimisation in R
- Extreme value theory

The main focus of the workshop is on applications in Finance. In practical sessions, the attendees practice how to use R and relevant R packages for financial modelling. Rmetrics, which is a collection of several hundreds of functions in the area of Financial Engineering and Computational Finance, is introduced via illustrative examples.



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Learning Outcomes

After successful completion of the workshop, the participants will

- be able to
 - ◇ import datasets into R and analyse them statistically,
 - ◇ apply concepts from time series modelling
 - ◇ utilize financial modelling packages .
- have acquired a good knowledge of how to apply the functionalities to other examples and their own portfolio problems.

Workshop Format

Theory and Practice

The workshop is split into Theory and Practical Sessions. Attendee numbers are limited to ensure that personalised tuition is available. The workshop includes eight sessions which are spread over four evenings.

Practical sessions

The hands-on sessions enable attendees to apply packages and functions introduced in the lectures. The instructors take you through all the steps of financial modelling examples in R and let you experiment with functionalities of various packages.

Target Audience:

Practitioners at banks, risk professionals, traders, consultants and academics, who wish to learn the basics of the statistical software R and its use in Finance

Presenters:

Dr. Ronald Hochreiter is an expert in Data Science and Optimisation under Uncertainty. He obtained his PhD in Computational Management Science from the University of Vienna in 2005 and his habilitation in Quantitative Business Administration from the WU Vienna University of Economics and Business in 2013. He published numerous scientific articles in international journals and is an active member of various scientific communities. He teaches and supervises theses at all levels (Bachelor, Master, PhD and MBA) at several universities. He actively consults companies in the areas of Finance, Energy, Health Economics. Furthermore he develops new algorithms for various tasks in the field of business analytics and predictive analytics. He is the co-founder and managing director of the Big Data analytics company Quant4Market and in charge for the general architecture as well as the development of Quant4Market technologies.

Dr. Christina Erlwein-Sayer is a visiting researcher working on the topic of financial analytics in general and models and tools for portfolio construction and Asset and Liability Management in particular. Dr Erlwein-Sayer is sponsored under a joint project between OptiRisk Systems and its partner Fraunhofer ITWM in Kaiserslautern, Germany. She completed her PhD in Mathematics at Brunel University, London in 2008. Prior to the current assignment Dr Erlwein-Sayer had presented workshops on behalf of OptiRisk at the IIM Calcutta Financial Research and Trading Laboratory in Kolkata, and also in Mumbai. Dr Erlwein-Sayer was also the lead member of the training partnership between OptiRisk Systems and Fraunhofer ITWM and presented at many of the workshops; notable of these was the training delivered to the World Bank in Washington.

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Date & Time	TOPIC
26 Nov 17:00—17:15	Registration
Session 1 17:15—18:45	First Steps in R <ul style="list-style-type: none">• Preparations and installations in R<ul style="list-style-type: none">◇ Background on R and contributed packages◇ R Console and R GUI• Hands on
18:45—19:00	Comfort Break
Session 2 19:00—20:30	<ul style="list-style-type: none">• Data import, data types and variables<ul style="list-style-type: none">◇ Elementary import functions◇ Data and date types• Descriptive data analysis<ul style="list-style-type: none">◇ Basic statistics in R• Hands on
27 Nov 17:00—17:15	Registration
Session 3 17:15—18:45	First Steps in R & Analysis of financial data <ul style="list-style-type: none">• Financial time series• Graphics in R<ul style="list-style-type: none">◇ Command “plot” and graphical display• Hands on
18:45—19:00	Comfort Break
Session 4 19:00—20:30	<ul style="list-style-type: none">• Monte Carlo Simulation<ul style="list-style-type: none">◇ Monte Carlo methods◇ Random numbers and scenario generation• Hands on
	End

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30 Nov 17:00—17:15	Registration
Session 5 17:15—18:45	Analysis of financial data & Modelling <ul style="list-style-type: none">• Time series modelling and simulation<ul style="list-style-type: none">◇ Simulating from given distributions◇ Simulating outliers• Hands on
18:45—19:00	Comfort Break
Session 6 19:00—20:30	Financial Modelling in R <ul style="list-style-type: none">• Volatility modelling in R<ul style="list-style-type: none">◇ ARCH model◇ GARCH model◇ Value at Risk• Hands on
1 Dec 17:00—17:15	Registration
Session 7 17:15—18:45	Financial Modelling in R <ul style="list-style-type: none">• Portfolio optimisation with R• Introduction of various Finance packages in R• Hands on
18:45—19:00	Comfort Break
Session 8 19:00—20:30	<ul style="list-style-type: none">• Extreme Value Theory<ul style="list-style-type: none">◇ Extreme Value distributions◇ Parameter estimation• Hands on
	End

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1st Delegate

Dr/Mr/Ms/Mrs.....First Name.....
Surname.....
Position.....
Email.....
Phone/Mobile.....
Head of Department

2nd Delegate

Dr/Mr/Ms/Mrs.....First Name.....
Surname.....
Position.....
Email.....
Phone/Mobile.....
Head of Department

Contact Details

Organisation.....
Address.....
.....
Post Code.....
Tel.....
Fax.....

Registration Fees:

£500 + VAT (attending in person)

£300 + VAT (online attendance)

This workshop will be streamed live online to delegates all around the world. Discounted rates for group bookings can be also arranged on request.

WHAT THE REGISTRATON FEE INCLUDES:

The registration fee for the training course or the event covers the following: attendance, copy of the documentation and materials, examinations where applicable and light refreshments. Accommodation is not included unless otherwise specified. Joining instructions will be sent to you approximately one week before the event (if for any reason these are not received, please contact UNICOM).

PAYMENT TERMS:

Payment is required in advance of the event or at the latest, paid at the event. All invoices carry a 10% surcharge, which is payable if the fee remains unpaid on the day of the event and 30 days thereafter; should the invoice remain unpaid beyond 30 days and up to 45 days the surcharge increases to 15% and if unpaid after 45 days the surcharge increases to 20%. For credit card payments a 2.5% fee amount is charged or for American Express cards the fee is 3% of the total amount.

CANCELLATION AND SUBSTITUTION TERMS:

What happens if I have to cancel? If you confirm your **CANCELLATION** in writing up to fifteen (15) working days before the event or training start date and if the invoice has already been paid you will receive a refund less a 10% + VAT service charge; if the invoice has not been paid at that point a credit note for the existing invoice will be raised and a new invoice raised for the 10% +VAT service charge – the service charge invoice is due for payment by the original event / training start date. Regrettably, no refunds can be made for cancellations received less than 15 working days prior to the event and the invoice will remain due. **SUBSTITUTIONS** are welcome at any time – there is no fee for sending a substitute delegate on any event or training. If it is more than 15 working days but less than 5 working days before the course or training start date, you may **TRANSFER** your registration to a future date within a 6 month period. If it is less than 15 working days to the event /training start date you can still **TRANSFER** your booking to a future event date within 6 months but an additional transfer fee of £125+VAT per person per event day will be charged (e.g. the transfer fee for a 2 day training is £250+VAT), invoices for transfer fees are due for payment within 7 days of the invoice date.

As we cannot guarantee that exactly the same event or training will be available, the transfer will be open to any other UNICOM event taking place within six months from the date of the original event. **TRANSFERS** are not accepted less than five (5) working days before the event or training unless there are exceptional circumstances and the acceptance of the transfer is at the discretion of UNICOM.

Where a transfer has been made and a future date selected, the standard cancellation terms and conditions apply to the transferred booking just as if it were a new booking.

UNICOM reserves the right to amend the event / training content programme if necessary and cannot guarantee repeats of the same event or training. All transfers and cancellations must be made in writing either by email or letter and are only valid when confirmed by email or in writing by UNICOM. Transfers and cancellations are not accepted by telephone.

INDEMNITY:

Should for any reason outside the control of UNICOM Seminars Ltd, the venue or the presenters change, or the event be cancelled due to but not exclusively to industrial action, adverse weather conditions, an act of terrorism, presenter illness or other reasons beyond its control UNICOM Seminars Ltd will make reasonable endeavour to reschedule, but the client hereby indemnifies and holds UNICOM Seminars Ltd harmless from and against any and all costs, damages and expenses, including attorneys fees, which are incurred by the client as a consequence beyond the attendance fee due to UNICOM. The construction validity and performance of this Agreement shall be governed by all aspects by the laws of England to the exclusive jurisdiction of whose court the Parties hereby agree to submit.

INVOICE TOTAL

I enclose a cheque made payable to UNICOM Seminars
Please charge my: Visa/MasterCard/Amex/Switch

Card No.

Expiry Date: /

Purchase Order

Please invoice (include invoice address)

F.A.O.....

Organisation.....

Address.....

Post code.....

Tel.....Mobile.....

Signature.....

Date