Preface

This volume is a collection of referred papers selected from the more than one hundred and twenty presented at the *International MAF Conference 2012 – Mathematical and Statistical Methods for Actuarial Sciences and Finance*.

The conference was held in Venice (Italy), from April 10 to 12, 2012, at the prestigious Cavalli Franchetti palace of the *Istituto Veneto di Scienze, Lettere ed Arti*, on the Grand Canal, very near to the Rialto bridge. It was organized by the Department of Economics of the University Ca' Foscari of Venice (Italy), with the collaboration of the Department of Economics and Statistics of the University of Salerno (Italy).

This conference was the fifth in an international biennial series, which began in 2004. It was born out of a brilliant idea by colleagues – and friends – of the Department of Economics and Statistics of the University of Salerno: the idea was that a cooperation between mathematicians and statisticians working in actuarial sciences, in insurance and in finance could improve the research on these topics.

The proof of the merits of this idea is the wide participation in all the conferences. In particular, with reference to the 2012 event, there were:

- about 180 attendants, including academics, professionals, researchers and students;
- more than 120 accepted communications, organized in 40 parallel sessions;
- attendants and authors from more than 20 countries: Australia, Austria, Belgium, Canada, Denmark, Egypt, France, Germany, Great Britain, Greece, Israel, Italy, Japan, Mexico, New Zealand, Portugal, Republic of Djibouti, Sierra Leone, Spain, Switzerland and the USA;
- 4 prestigious plenary keynote lectures delivered by:
  - Professor Giuseppe Cavaliere of the University of Bologna (Italy): "Unit roots in bounded financial time series";
  - Professor Paul Embrechts of the ETH Zurich (Switzerland): "Extreme-quantile tracking for financial time series";
  - Professor Dominique Guégan of the University Paris1, Panthéon, Sorbonne (France): "A quantitative finance and actuarial framework for risk management";
  - Professor Wolfgang Runggaldier of the University of Padua (Italy): "On stochastic filtering applications in finance";

- an instructive plenary lesson, mainly addressed to Ph.D. students and young researchers, delivered by Professor Chris Adcock of the University of Shefield (Great Britain): "Doing research and getting it published".

Generally, the papers published in this volume present theoretical and methodological contributions and their applications in real contexts.

With respect to the theoretical and methodological contributions, some of the considered areas of investigation include: actuarial models; alternative testing approaches; behavioral finance; clustering techniques; coherent and no-coherent risk measures; credit-scoring approaches; data envelopment analysis; dynamic stochastic programming; financial contagion models; financial ratios; intelligent financial trading systems; mixture normality approaches; Monte Carlo-based methodologies; multi-criteria methods; nonlinear parameter estimation techniques; nonlinear threshold models; particle swarm optimization; performance measures; portfolio optimization; pricing methods for structured and non-structured derivatives; risk management; skewed distribution analysis; solvency analysis; stochastic actuarial valuation methods; variable selection models; time series analysis tools.

As regards the applications, they are related to real problems associated, among the others, to: banks; collateralized fund obligations; credit portfolios; defined-benefit pension plans; double-indexed pension annuities; efficient-market hypothesis; exchange markets; financial time series; firms; hedge funds; non-life insurance companies; returns distributions; socially responsible mutual funds; unit-linked contracts.

Of course, success of this conference would not have been possible without the valuable help of our sponsors (in alphabetical order):

- AMASES: Associazione per la Matematica Applicata alle Scienze Economiche e Sociali;
- Centro Interdipartimentale su Cultura e Economia della Globalizzazione;
- Department of Economics of the University Ca' Foscari of Venice;
- Department of Economics and Statistics of the University of Salerno;
- DIAMAN SIM S.p.A.;
- Istituto Veneto di Scienze Lettere e Arti;
- Nethun S.p.A;
- Regione del Veneto;
- VENIS S.p.A.

Further, we would also like to express our deep gratitude to the members of the Scientific and Organizing Committees, to the Center of Quantitative Economics of the Ca' Foscari University of Venice, to the Webmaster, and to all the people whose collaboration contributed to the success of the conference *MAF 2012*.

Finally, we are pleased to inform you that the organizing machine of the next edition is already working: the conference *MAF 2014* will be held in Vietri sul Mare (Italy), on the enchanting Amalfi Coast, from April 22 to 24, 2014 (for more details visit the website http://www.maf2014.unisa.it/).

We look forward to seeing you.

Venice, August 2013   Marco Corazza
                                                                                                       Claudio Pizzi