Econometrics is the application of mathematical, statistical, and computational methods to economic data. Econometrics adds empirical content to economic theory, allowing theories to be tested and used for forecasting and policy evaluation.

One of the most important aspects of economics—and one of the most difficult tasks in analyzing economic data—is how to properly take into account economic risk. Proper accounting of risks is vitally important for keeping the economy stable and prosperous.

The economic crises of the 1990s has shown that the traditional methods of risk analysis, methods based on simplified Gaussian statistical descriptions of economic phenomena and corresponding risks, are often not sufficient to adequately describe economic risks. Because of this insufficiency, new methods have been developed, in particular, methods using non-Gaussian heavy-tailed distributions, methods using non-Gaussian copulas to properly take into account dependence between different quantities, methods taking into account imprecise (“fuzzy”) expert knowledge, and many other innovative techniques.

This volume contains several state-of-the-art papers devoted to econometrics of risk. Some of these papers provide further theoretical analysis of the corresponding mathematical, statistical, computational, and economical models. Several other papers describe applications of the novel risk-related econometric techniques to real-life economic situations.

We hope that this versatile volume will help practitioners to learn how to apply new techniques of econometrics of risk, and help researchers to further improve the existing models and to come up with new ideas on how to best take into account economic risks.

We want to thank all the authors for their contributions and all anonymous referees for their thorough analysis and helpful comments.

The publication of this volume is partly supported by the Chiang Mai School of Economics (CMSE), Thailand. Our thanks to Dean Pisit Leeahtam and CMSE for providing crucial support. Our special thanks to Prof. Hung T. Nguyen for his valuable advice and constant support.
We would also like to thank Prof. Janusz Kacprzyk (Series Editor) and Dr. Thomas Ditzinger (Senior Editor, Engineering/Applied Sciences) for their support and cooperation in this publication.

Nomi, Japan, January 2015
El Paso, TX, USA
Chiang Mai, Thailand

Van-Nam Huynh
Vladik Kreinovich
Songsak Sriboonchitta
Komsan Suriya
Econometrics of Risk
Huynh, V.-N.; Kreinovich, V.; Sriboonchitta, S.; Suriya, K. (Eds.)
2015, X, 498 p. 94 illus., 75 illus. in color., Hardcover
ISBN: 978-3-319-13448-2