

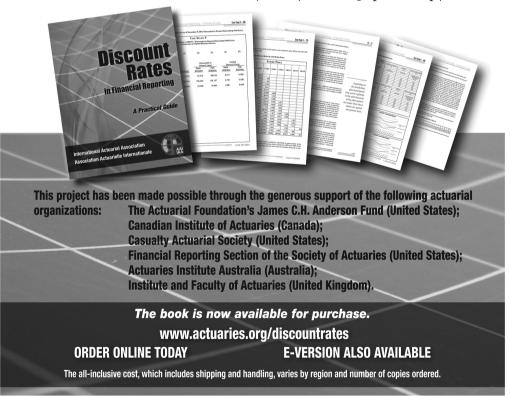
The time value of money is significant to economics and in turn to the current value of projected cash flows.

Recent decades have seen a growth of knowledge and available information in the areas of finance and capital markets.

There still remains a need for more widespread understanding of the important aspects, from a conceptual perspective and the practical techniques relating to the discounting process in actuarial practice.

The primary areas of application include financial reporting for insurance contracts and the financial reporting of pension/employee benefit plans.

The objective of this monograph is to help fill this void.





A guide for practitioners interested in understanding this important emerging field, *Stochastic Modeling* — *Theory and Reality from an Actuarial Perspective* presents the mathematical and statistical framework necessary to develop stochastic models in any setting (insurance or otherwise).

You will find:

Techniques – such as Monte Carlo simulation and lattice models – commonly used in various applications of stochastic modeling.

Practical considerations of stochastic modeling, including model calibration and validation.

Model review and communication of results, of interest to senior practitioners already familiar with the fundamentals of stochastic modeling.

Case studies of life and non-life insurance companies, covering a range of topics relevant to capital and surplus modeling of life and non-life insurance companies, including Economic Capital calculations, stochastic reserve and capital calculations, embedded value

analyses, and stochastic product pricing and risk management. Taken together, these case studies cover most of the widely-used insurance applications of stochastic modeling to date, and provide an illustrative framework from which future applications can be developed.

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Risk metrics that have applications in stochastic modeling, such as Value at Risk (VaR) and Conditional Tail Expectation (CTE).

Stochastic scenario generation for key risk factors affecting life insurance products, including interest rates, credit defaults, exchange rates,

"This book gives actuaries state-of-the-art tools to characterize degrees of risks in ways that significantly reduce the shadow of uncertainty over the analysis of strategic policy options." Yves Guérard, former Secretary General

If you would like to order an electronic or bound printed copy of Stochastic Modeling — Theory and Reality from an Actuarial Perspective, please visit: www.actuaries.org/Stochastic

This publication was produced by a team of talented writers and researchers at Milliman, Inc., and made possible through the generous support of the Actuarial Foundation (United States); Canadian Institute of Actuaries; Casualty Actuarial Society (United States); Financial Reporting Section of the Society of Actuaries; Het Actuarieel Genootschap (Dutch Actuarial Association); and the Actuaries Institute Australia. In addition to their financial assistance, representatives from these actuarial associations provided technical guidance and support throughout the project. The IAA is grateful for their contribution to this publication which forms an important part of our research and educational objectives.

ASTIN Bulletin: The Journal of the International Actuarial Association NOTES FOR CONTRIBUTORS

AIMS AND SCOPE

ASTIN Bulletin was founded in 1958 as a journal providing an outlet for actuarial studies in non-life insurance. In the late 1980's the journal extended its scope to encompass the study of financial risk in insurance (AFIR). In 2007 the journal was established as the journal of the International Actuarial Association (IAA) and encompasses all of the scientific sections of the IAA.

ASTIN Bulletin publishes papers that are relevant to any branch of actuarial science and insurance mathematics. Papers should be quantitative and scientific in nature, and might draw on theory and methods developed in any branch of the mathematical sciences including actuarial mathematics, statistics, probability, financial mathematics and econometrics.

The journal welcomes papers that present significant and original theoretical developments and papers that present significant and original applications of mathematical, statistical or econometric theory to problems arising in insurance, pensions and finance. We especially welcome papers opening up new areas of interest to the international actuarial profession as well as papers that describe open problems that have arisen in practice.

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