Annals of Actuarial Science, Vol. 8, part 1, p. 176. © Institute and Faculty of Actuaries 2014
doi:10.1017/S1748499514000025

Book Review

Introduction to the Mathematics of Finance: A Deterministic Approach, Stephen Garrett, Published for the Institute and Faculty of Actuaries, Elsevier; 2nd Edition (2013), 450pp. (hardback), £48.99. ISBN: 9780080982403.

This book contains a set of subjects that will be very close most actuaries' hearts, being a text book aimed at covering the CT1 syllabus. As an update to McCutcheon and Scott's 1989 *An Introduction to the Mathematics of Finance*, it offers some very clear explanations of the fundamental building blocks of actuarial work, such as compound interest functions, term structures and discounting. As a text for the beginner, this book is perfect, and although the content doesn't feel particularly different from my half-remembered actuarial "core reading", the style is infinitely more accessible. Definitions are given in plain language which is followed by more rigorous mathematical notation; key words and phrases are highlighted and proofs are laid out explicitly.

The use of examples and exam questions from both the IFoA and the CFA Institute makes this a very valuable study aide. The fact that the solutions to the large number of exercise questions are also given further increases its usefulness as a primary textbook.

Of course, all of this means the book is unlikely to be of great interest, or use, to the more experienced practitioner. Hopefully most won't need too much of a refresher on how to discount future cashflows or to calculate a loan repayment schedule!

Even so, chapters introducing derivative pricing certainly go further than my memory of the early exams and for that reason I will be keeping the book in the office for the rare occasions when such things cross my desk. It also might make a good book to give to newer trainees to introduce important concepts if a working knowledge is required before they meet them the exams.

In summary, *Introduction to the Mathematics of Finance: A Deterministic Approach* is very clearly at a university audience – as indeed is noted in the preface. It shouldn't be on the reading list for most actuaries. But as primer, it is certainly a success and one which I hope is used by great many students in the future.

Robert Jarvis
(Rob.Jarvis@lcp.uk.com)