ideas can be translated to the U.K. perspective. The authors are predominantly practitioners rather than academics; this may be the reason that most of the articles are readily accessible to a broad spectrum of readers and point quite clearly to practical implementation. I particularly enjoyed the articles on style allocation and analysis as a practical and interesting addition to what many actuaries would perceive as asset allocation. Other chapters offered some engaging and thought-provoking insights into how modern portfolio theory and similar models are currently adapted in practice, and what further concerns need to be addressed in asset allocation.

My major grumble with the book is that it lacks a consistent framework, or at least a consistent theoretical basis. As noted earlier, the authors of the chapters are drawn from independent sources, mainly asset management and investment consultancies. Although their differences generate variety and interest in writing style, they detract from the overall usefulness of the book in the way that the editors view it in their preface, i.e. a "working handbook ... to solve real-world problems and make portfolio management easier". For example, some chapters endorse modern portfolio theory and the capital asset pricing model, in total contrast to others which deny the validity of such models and tackle the issues in asset allocation in a more *ad hoc* way. A particular case in point concerns the relationship between risk and return, with utterly conflicting viewpoints (and supporting evidence!) being presented in Chapters 10 and 18. The author of Chapter 18 argues rather perversely (and disputably) that high risk and low return are associated; a contradictory position to the more conventional one taken by, among others, the actuary in Chapter 10.

In terms of style, some chapters are more readable than others, partly because of the varying levels of mathematical development and statistical expertise employed by the various authors. A disappointing feature of the disparity of styles is that several statements are not explained in sufficient detail to ensure clarity. The consequent lack of rigour considerably weakens the arguments of the relevant authors. For example, in Chapter 3 the author inexplicably writes: "Without normal or log-normal distribution, there are no 'variances' (in a true statistical sense) ... and no measurable areas of probability."

A second concern which arises with the structure of the book is that many of the chapters are wanting in sufficiently detailed references, or, in some cases, references at all; viz. six of the twenty chapters have no list of references and many more chapters have only token lists. Thus, although the authors introduce some fascinating concepts which could possibly see application in the U.K., the impression one is left with is that substantial further research would be required before they could be implemented. A more comprehensive list of references (or of further reading) at the end of every chapter to direct the reader to sources of additional detail would improve the usefulness of the book markedly.

A point of a more minor nature is that the book contains a couple of typographical errors in some of the mathematical expressions (e.g. pages 148 and 261) and in at least one of the references (page 319). These are, however, unlikely to cause actuarial readers much of a problem.

On the whole I found *Global Asset Allocation* to be an interesting text which contained pointers to many novel and fascinating areas of research and applications of asset management. However, a more theoretically consistent and rigorous approach in some of the chapters would have greatly enhanced its value as a reference work for readers wanting to explore the concepts and suggestions in more depth.

D. C. Bowie

The Reduced Utility of a Life Plan. By R. Koch (University of Stellenbosch)

This work, by a South African author, is a major thesis on the assessment of damages for personal injury and death. The author is both an actuary and a lawyer, and this dissertation was presented for a law doctorate at the University of Stellenbosch.

The title is unusual for a book on damages, but the concept of the 'utility of a life plan' is central to the author's thesis. He develops the argument that 'damage' is a reduction in the overall utility of a person's life plan, and that 'damages' by way of monetary payment provide a substitute for what has been lost. The thesis suggests a new meaning to the accepted objective of monetary damages of achieving *restitutio in integrum*. The author interprets this as seeking compensation which will, as far as possible, restore the overall utility of the plaintiff's life plan to what it would have been had there been no injury or death. In this context, actuarial calculations are a tool of utility analysis, assisting in the determination of a present financial equivalent for the utility of the life plan which has been lost.

The work is intended for legal rather than actuarial readers, and those with no legal training and who are unfamiliar with the theory of utility will find the early chapters heavy going. The English reader will also be hampered by extracts from judgments and other sources in Afrikaans, and there are, unfortunately, a considerable number of printing errors.

Chapters 4 to 11 deal with financial and technical matters, and will be of general interest to actuaries outside South Africa who are practitioners in this field. In contrast to the position in the United Kingdom, there is, in South Africa, a 'heavy reliance by the courts upon actuarial evidence'. The author argues consistently with his general thesis that actuarial calculations are concerned with the valuation of chances, in respect of the individual claimant, which are relevant to the utility of his life plan before or after the injury. He is critical of those of us who have employed a 'mortgage repayment' model (or, in his words, a 'consuming interest and capital' approach) in an attempt to justify our results and break through the courts' inclination to reject actuarial calculations as based on averages and not relevant to the individual. He strongly advocates the 'actuarial year-by-year method', which we all use as the primary basis of assessment.

There are some unintentional moments of humour for the U.K. reader, occasioned by the author's lack of personal experience of hostility to actuarial evidence in the courts. He attempts to analyse the fears underlying this hostility, but concludes that "such fears may be appropriate when dealing with a jury, but of dubious relevance when dealing with a highly educated judge"!

One interesting byproduct of the author's approach is that collateral benefits (e.g. employer sponsored or personal life assurance and pensions) should be deducted from damages, because they enhance the post-injury utility of a life plan. This is not the current position under either South African or U.K. law.

The final chapters, 12 and 13, examine in detail the techniques and legal aspects governing the assessment of damages for personal injury and loss of support arising from the death of a breadwinner. They relate primarily to the law of South Africa, but are of general interest to an international readership.

JOHN PREVETT

Unapproved Pension Schemes. By A. LANGLEY and R. K. MULCAHY (Butterworth Law Publishers Ltd., 1994) £65.00

In the Finance Act 1989 the Chancellor of the Exchequer introduced a cap on the benefits which could be paid to a company's employees from an approved pension fund. This book describes, in considerable detail, how companies can approach the problem of how to replace the benefits which would have previously been paid by its approved pension fund.

A simple example, in Chapter 1, illustrates how the linking of the earnings cap to retail price inflation will mean that an increasing number of pension fund members in the future will be caught by the new legislation. So, while the present book applies to a relatively small number of individuals now, it (or a successor) will become an increasingly important reference for pensions actuaries.

The book is effectively divided into two halves. The first half deals, in great detail, with the intricacies of the tax legislation as it applies to a variety of unapproved pension arrangements. Because of this complexity, I felt that the 'business advisers' referred to on the back cover as the target readership for this book would really need to be a quite highly specialised subgroup. This is not meant to be a criticism of the book, but just a view that it would be improper for a non-specialist to be giving advice on such a complex area.