

REVIEWS

A Ramble through the Actuarial Countryside: The Collected Papers, Essays and Speeches of Frank Mitchell Redington. Edited by GARY CHAMBERLIN. (Institute of Actuaries Students' Society, London, 1986.)

The lifetime deliberations and ponderings of one of the actuarial profession's great thinkers have been brought together in this publication. Frank Mitchell Redington was an outstanding actuary who contributed to the development of actuarial thought and understanding in a very special way. As a result, this volume is a significant work and should ensure that his penetrating analyses are not lost but continue to challenge actuaries and students alike.

The book groups his contributions into eight sections which range from statistics through national pensions and mortality to his last reflections. This approach seeks to enable the reader to follow his developing thoughts in a particular area. The concept works well in some instances, but in other areas it breaks down as some topics, particularly those of a more philosophical nature, inevitably recur in later sections. This is unfortunate as the casual reader of one section may not be aware of Redington's other contributions in related areas. The compilation of an index, even at this post-publication stage, or increased cross-referencing within the text would provide useful assistance to many readers, particularly students.

One excellent aspect of the book, that cannot go without mention, is the incisive commentaries provided by Gary Chamberlain at the start of each section. They provide a very commendable summary of the ensuing papers and speeches in a crisp and lucid style, often providing useful historical background to the topic discussed. Chamberlain's use of Redington's initials to summarize the essentials of actuarial work also provide a novel answer to the perennial question, "What does an actuary do?". In addition, the editor has ensured that the volume is presented at the high standard compatible with a Gold Medallist from the Institute.

The volume will be of great benefit to students who wish to improve their understanding of a particular area of study as they are now able to readily dip into Redington's many pearls of wisdom. The opportunity is now available for them to obtain a deeper grasp of the topic whether it be the funding of pensions, the meaning of fairness, the definition of investment, the concept of present value or one of the other fundamental subjects addressed within the book.

Of course, it must be stressed that the book is not for students only. Indeed, actuaries will undoubtedly be challenged (whether it be for the first, second or third occasion) by Redington as he ensures, with his own indomitable style, that the reader thinks through some fundamental issues, that may have last been tackled in an exam paper ten, twenty or even thirty years ago. The reader of these actuarial papers is not left unmoved.

This was one of the great strengths of Frank Redington and it is inevitably carried through into this volume. Conventional actuarial wisdom is questioned. Traditional philosophy and practices are not assumed to be correct. In the explanation of the Flock and the Sheep, Redington wrote that "we are usually discussing the exercise of our philosophies and seldom the philosophies themselves". As F. B. Corby commented in the Institute discussion of that paper, there is little in the course of reading about the thought processes of actuaries. This highlights an important weakness of our profession, which if it

remains uncorrected, may lead to the long term decline of the influence of actuaries in the ever-changing realities of this world.

This danger is especially present with the current trends of actuarial education as students are encouraged to qualify as quickly as possible through the introduction of full-time courses. The result may be that students do not have the opportunity to consider some of the underlying actuarial philosophies until after they qualify when the mind is already set. As a graduate, and now staff member of the Macquarie programme, I am not objecting to the move towards the Universities! Rather, let us make sure that there is scope within these programmes to consider some of the fundamental philosophical issues raised by Redington and that examination passes do not become the only goal. An appreciation of the differing philosophical stances adopted by actuaries in a variety of circumstances will enable the students, should they qualify, to become better actuaries. It is in the fulfilment of this aim that this collection can play a very strategic role.

As an example of Redington's contribution to understanding actuarial philosophy, let us consider the example of present value - a technique at the very heart of actuarial work. At the 1954 Madrid Congress, Redington noted that this powerful instrument both compresses and suppresses. Indeed, perhaps it is too powerful. It is a theme to which he returned many times and ultimately, in his seminal essay of "Prescience and Nescience". As he implied, many actuarial students (not to mention fellows, in an unthinking moment) can become blinkered through the use of present values. The use of one interest rate, chosen by a conventional (but perhaps unrealistic) method, to provide one (correct!) answer is the bread and butter of much actuarial work. Yet, it must be remembered that information has been lost. Redington suggests the projecting of net cash flows with the result showing present value markers and not one valuation result. It is a development that is much easier to follow today with the widespread use of computers. The process has started but there needs to be continuation and, with it, a subsequent change in our philosophical understanding of present value.

There are many other papers and speeches which provide fascinating, and, at times, almost prophetic reading in the light of current developments. Examples include the comments on contracting-out which, as I understand from Down-Under, may be particularly pertinent at the moment; the historical development of the terminal bonus and its meaning as economic circumstances change; and the paper on the physiological limit to life and comments concerning future research in this area.

Naturally much of the personality of Frank Mitchell Redington is evident throughout the book as he speaks and as others praise him. It may be encouraging for us all that he too found Exposed-to-Risk difficult but, not leaving it there, went on to ask whether we had made the question too difficult! He was also a man who sought fairness, as his many contributions to the debates concerning equity testify. In one essay, he reveals his underlying views, as he summarized the statements of Ptahhotep that you must always do what you believe is right and be considerate to your neighbour. These are high and noble principles and, as one who stands from afar, it appears that Redington often lived them out, even in his writings.

There is no doubt that he was also an excellent communicator, whose use of the English language was masterly, and an envy of many actuaries. These skills have been used to broaden the impact of the actuarial profession into the wider community. For instance, the 1952 paper is considered a classic in the field of finance and remains one of the few actuarial papers read widely beyond the profession. I am sure that this development would have pleased the author who strongly believed in communicating and thereby removing some of the mystery surrounding actuarial knowledge.

Another example of Redington's desire to communicate actuarial ideas beyond the profession is the publication of the pensions booklet during his presidential years. Whilst it is unclear the extent to which the booklet was written by Redington, it is apparent that he was very concerned to ensure that the actuarial voice was heard in the national debate. It is an example that we must all be willing to follow, when the circumstances require the profession to speak.

The writings contained in this collection ooze with the profound understanding of the author. Yet, they are not complex to read. Rather, his grasp of the material was so deep that he was able to simplify the subject to its very basics, often with the use of analogies. These provide a very useful and enjoyable learning tool and range widely, including the schoolboy outside the sweet shop, the elephants rocking the boat and the story of Peter and David from his 1981 paper. They are always enjoyable to read and this reader was continually amazed as another new, yet totally appropriate, analogy was presented.

Finally there is Frank Redington's well known quote in the acceptance of his gold medal that "the actuary who is only an actuary is not an actuary". He was very much of the view that actuaries must go beyond the restrictions of the profession and continue to push out the frontiers with impulse and imagination. It is my hope that this volume will encourage us all, whether students or fellows, to continue along this path with a strong commitment to actuarial research. This collection opens up many possibilities as Redington has shown us that it is profitable to question some of our fundamentals without weakening the profession. Indeed, it is more likely to strengthen it and provide the philosophy and skills necessary for the twenty-first century.

DAVID M. KNOX

The Students' Society Log 1960–1985: Twenty-five Years of Enterprise. By C. M. STEWART, C.B. (Institute of Actuaries Student Society, London, 1986.)

Some years ago a review in J.I.A. started with the words "It is difficult to write a short review of this book" and your reviewer has, although for very different reasons, similar feelings about the work under consideration. There is such a wealth of material that it is necessary to be selective, and there are bound to be many omissions in the matters discussed here.

After an introductory chapter taking the form of a resumé of Menzler's book "The First Fifty Years", which is of importance as emphasising the continuity of the Society's development, the book divides naturally into two sections, dealing respectively with the professional and the social activities of the Society, the professional section being itself divided into sections dealing with the meetings and with publications, and concludes with a look into the future.

Dealing first with the professional aspect of the Society's work, I feel that the comment in Chapter 4 on the interval between reviews of the Institute's education system could be misleading; in fact in the post war period these have taken place at nine year intervals. No doubt the intention originally was to leave rather longer intervals, but events have a way of upsetting plans of this kind. Personally I hope that it will be possible at least to maintain and possibly to extend the intervals between these reviews; I sometimes have a nightmare in which a review body is set up before the decisions of the previous review have had a chance to be in force long enough to demonstrate how they work out in practice!

I am very much in agreement with the general thrust of the Society's professional

activities, and in particular its views on the necessity for an active research programme; a profession which does not engage in vigorous research will soon wither and decay. The book well describes the forms that research has taken in the past, and explains why certain developments have been abandoned. Like any other human activity, successful research involves a lot of hard work; those engaging in research, while on the whole finding it a deeply rewarding activity, are left in no doubt that it is "ninety nine per cent perspiration and one per cent inspiration". At this point the small size of the profession can be a handicap; there is only a limited supply of suitable manpower and the demands on this pool for participation in the educational work of the Institute are pressing. Hopefully the recommendations of the Kennedy committee, when fully implemented, will lead to an amelioration of the position, as will the increasing number of University lecturers in actuarial subjects. One aspect of research which has played a significant part in the Society's activities during the period under review concerns computers. It is worth noting that as recently as 1959 for the first time a paper was submitted to the Institute which could not have been written had computing facilities not been available, and such facilities, obtained with the help of generous research grant, had to be sought from Ferranti's at Manchester—and this less than thirty years ago! A more serious comment concerns the variety of programming languages which have been used. The Society's computer programming course used Extended Mercury Autocode, its computer appreciation course used Fortran, but when as a result of the Skerman review committee the Institute introduced computer programming into the examinations, the language used was Algol! One wonders whether an unseen saboteur was at work in Staple Inn, because this profusion of languages could not but be confusing, and irritating.

The author gives a complete list of topics discussed at General Meetings, which stresses both the catholicity and the insistence on relevance and topicality of the committee's approach. Indeed I personally am aware of a proposed paper which had to be omitted because by the time it could be included in the programme it had become seriously out of date. However, perhaps wisely, no attempt is made to grade the papers in any order of merit—to have done so would have been invidious and likely to have been counterproductive. There is however one point on meetings which I am sure causes concern to the committee, and that is the numbers of members attending; in spite of the threefold increase in membership during the twenty-five years, the average attendance at meetings has less than doubled. This is partly due, no doubt, to geographical reasons, as a greater proportion of members work outside the central London area.

The importance attached to the Society's publications has grown as the years pass—possibly in part as a reaction to the lesser importance attached by the members to attendance of meetings. Like the author I find it needless to say anything very much about J.S.S., which continues on its successful course, other than that the development by which selected papers presented to provincial societies are included demonstrates an ability to introduce modifications in the light of changing conditions which bodes well for the future. Nor need anything much be said of FIASCO; the editor has not always been completely successful in achieving the right balance between solemnity, and flippancy, but the basic aim of the treating serious topics in a light hearted manner is one to be whole heartedly commended. I now come to "Actuaries and Financial Planning". The author mentions that the book was published fully six years after the project had been started, and implies that this was rather a long period. To one who has been closely associated with the production of Institute Text Books, the period seems remarkably short. Indeed the remark that the production of these books proceeds at a snail-like pace has been dubbed

unfair to snails! There is no doubt that the present position regarding reading matter for students is most unsatisfactory, and your reviewer wonders whether the society could revert to its former position in playing a greater role in providing this material. It may well be that it is impossible to provide up-to-date text books on the subjects included in the later parts of the *Institute* syllabus, and that something on the line of the old "Consolidation of Reading" series in which attention is drawn to significant papers in J.I.A., T.F.A., J.S.S., and elsewhere without attempting a conflation of the views expressed save perhaps for an indication that Mr X's remarks, as reported in the discussion of a paper, are always worthy of attention, would be of help to members—and not solely to those still studying for the examinations. At the same time, the Society might consider making available copies of relevant material which has gone out of print or was otherwise difficult to obtain, whether by arranging, as in former years, reprints, or in other ways.

Finally I turn to the Social activities of the Society, and one cannot but be impressed by the vast expansion in this sphere; nowadays truly there is something which will cater for almost any taste. However, for me at least, the highlight must be the entertainments following the Annual Suppers. The combination of familiar tunes with neat variations on the original words, all poking gentle fun at some of the senior members of the profession I find irresistible and the generous portion of nostalgia served up by the author revived many happy memories. If I may add one more, Bernard Fison's chanting the instructions to examination candidates in plain-song appealed to me greatly—but each of us has his favourites and it is not for me to cavil at the author's generosity.

This, I fear is but an inadequate appreciation of this book; it has been a delight to read, and if I have been able to convey something of the sheer quality of the work I shall be amply satisfied. To those who have not already done so, go out and buy your copy today.

JACK DYSON