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BOOK REVIEWS AND NOTICES

Vic Modugno, *Broken Promises: The Inside Story of the Failure of Executive Life*, pp. 206, published by Pacific Insurance Press, Torrance, California, 1992, $24.95

When highly qualified candidates from traditional life insurance companies applied for an actuarial position at Executive Life (EXL) in the 1980s, the odds were that the EXL management would view them as lacking in "flexibility." To EXL's management (mainly CEO Fred Carr and his consulting actuary, Al Jacob), flexibility meant operating "at the extreme edge of the gray area between legal and illegal." This flexibility, along with innovation and quick "time to market" for new products, and a massive investment in junk bonds (which at one time were as much as 60 percent of total assets), propelled EXL to a compound growth rate in assets of 50 percent per year during the late 1970s to 1989 (compared to 5 percent for the life insurance industry as a whole during this period).

Vic Modugno, FSA, survived in this helter-skelter environment from the time of his hiring in May 1986 to April 1990, when he left shortly after the junk bond market crashed and "the debt party was over." The core of this book is a history of EXL from the early days (it was founded by a group of local insurance agents in southern California in 1961) up through 1974, when Carr became President and then CEO, and on through the wild years of growth to the end in 1991, when EXL went into conservatorship and Carr was escorted out of the EXL corporate headquarters by security guards and his company car confiscated.

In addition to being a history of EXL and its almost equally well-known subsidiary, Executive Life of New York (EXLNY), this book contains well-written and informative sections on the economy of the late 1970s through 1991; the life insurance, annuity and pension businesses; state insurance department regulation; the reinsurance business (especially modco and surplus relief insurance); field compensation; auditing; consulting; the various tax reform bills of the 1980s; the vagaries of statutory accounting; and, last but by no means least, the magic of junk bond financing (EXL was the largest purchaser of Michael Milken's junk bond offerings).

Most of the book consists of anecdotes and highly personal observations, many of which some readers may find to be of questionable taste or judgment. The book also is marred by sloppy editing and frequent grammatical and spelling errors. In one such situation, the work "trance" is used incorrectly about ten times for "tranche," which means a slice or a portion of a bond issue. The author, who seems to have had a love-hate relationship with EXL, has strong feelings (mostly negative) about many things, and he is not shy in the least about expressing them. He also has a tendency to pepper his prose with rumors. Except for certain technical sections (such as the chapter on pensions, which can be heavy going if you don't have a technical background in this subject), the breezy and gossipy quality of his writing makes for entertaining reading.

With a book such as this, it is probably better to let the author speak for himself, and let readers make of it what they will (Some of the more pungent comments are omitted from this review.):

> "By 1986, Executive Life had grown to $10 billion in assets and 1,000 employees. Yet it was still being run by Fred Carr by the seat of his pants like a small company." (p. 53)

The author delights in comparing EXL with his earlier employer, Metropolitan Life, and other large mutual life insurance companies:

> "Metropolitan Life had an employees' lunchroom, a supervisors' lunchroom, a managers' lunchroom, and an officers' dining room. The oficers had two luncheon shifts—one for senior officers and one for junior officers. The officers' dining room had waitress service while the other levels were cafeteria style . . . at Executive Life, everyone including Fred ate in the cafeteria." (p. 55)

> "Executive's management was willing to exploit marketing opportunity and to introduce innovative products immediately. Most large companies had become so bureaucratic that they could take years to implement a new product . . . if their entrenched ultra-conservative managements could be induced to approve anything new." (p. 21)

> ". . .Most large mutuals hide huge amounts of statutory surplus in reserves. This minimizes taxes, and is also consistent with the very conservative way in which these companies are managed. Their actuaries like to set up reserves to cover every conceivable contingency. If Metropolitan had set up reserves (when I was there) on the same bases as Executive Life, they would have many times the amount of surplus." (p. 194)

Consultants come in for their fair share of the author's scorn:

> "There are many incompetent consultants in the pension business. They seem to get employment primarily in public employee or charitable groups where there is less financial sophistication and concern." (p. 74)

The author marvels at the intricacies of the EXL marketing system and the greed of anybody who had anything to with it:

> "Executive Life had a Byzantine marketing structure that arose in part from the high commissions and interest credited and from Fred's desire to avoid in-house marketing expenses. Marketing groups were formed to wholesale specialized products. . . . Then there were the marketing arms, such as Exceptional Producers. A GA had to produce $100,000 in commissions annually. The (GAs) recruited subagents who actually did the selling. . . . There were also brokerage general agents (BGAs) and managing general agents (MGAs). The marketing was like a pyramid

> scheme or Amway distribution system. Each level of the marketing structure received an override commission based on what the level below it sold." (p. 67)
>
> "Some large (pension) cases had so many individuals sharing the commission that we would refer to the master agent as a "bag man." (p. 69)
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> ". . . the agents saw the potential commissions to be made in group annuities. Total life insurance company group annuity premium from plan terminations already exceeded $6 billion per year. Applying a 10% commission rate to that would produce $600 million. Not bad for taking orders!" (p. 77)

But he saves his greatest contempt for state insurance departments and the people who work in them:

> "New York attempts to do the most thorough regulation of any state. . . . New York and New Jersey together have more actuaries working in the state insurance department than the remaining 48 states combined. The New York Department (NYSID) is an extension of the large mutual companies domiciled in the state—Metropolitan and Equitable. The Prudential . . . dominates the New Jersey Department." (p. 159)
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> "The NYSID acted much like the Japanese Ministry of Trade in cooperating with local companies to promote informal unwritten barriers against foreign 'devils'." (p. 168)
>
> "You would think that the NYSID would be thrilled to have consumers within New York getting a bargain on insurance and annuity products. Instead the department would jump on any company that dared to underprice the inefficient, bloated mutuals dominant in that state." (p. 161)

It is this last theme that the author stresses in describing the years leading to the downfall of EXL. He uses Regulation 126 on cash-flow testing to make his point:

> "NY 126 was developed by a task force of actuaries from Metropolitan and other New York Mutuals. . . . The regulation was complex, over 100 pages long, and reflected the (Asset/Liability) management practices of large mutual companies like Metropolitan. It also gave the NYSID broad authority in setting the assumptions and in deciding to approve a submission. If they did not approve, substantial additional 'penalty' reserves would have to be set up." (p. 163)
>
> "Many small companies could not afford to do the study (which would be needed to prepare a NY 126 submission) for which consultants might charge $100,000 or more, and chose to set up penalty reserves instead. As you might imagine, they would not be too aggressive in writing more of this business, thus limiting the competition." (pp. 164–165)

The author claims that the NYSID tried to force EXLNY into statutory insolvency "by specifying unrealistically low interest rates and high default rates" and by other unrealistic assumptions. He further states that "NYSID was clearly prejudiced against EXLNY and would reject any study that proved solvency." Eventually, EXLNY hired a consultant, at a cost of $126,000 per study, who was able to "object when the NYSID was making unreasonable demands . . . compared to what it approved for other companies."

After the failure of the United Airlines buyout in the fall of 1989, the junk bond market began to decline. S&Ls were beginning to sell their junk bonds because of a new rule that forced them to mark these bonds to market. The decline snowballed, and by February of 1990, "streams of policyholders were coming into the Executive Life Center (in west L.A.), policies in hand, seeking to cash in before it was too late." The panic did not last long, but things only got worse as 1990 wore on. The junk bond market continued to nosedive, and after Iraq invaded Kuwait in August, the recession was apparent. Standard and Poors (S&P) and Moody's both put EXL on "credit watch with negative implications." The stock went from a high of 17 in 1989 to 7 in mid-January. After S&P downgraded EXL's rating from AAA to A and Moody's from a1 to Baa2, the stock fell from 7 to 3 in one day. Even at that, EXL managed to last another year until the California department took it over.

One of the ironies of the EXL situation, in the author's opinion, is that it was actually stronger in 1990, when the roof began falling in, than it was in 1983, before the phenomenal years of 1984–1989 (from $4.8 billion in assets at year-end 1983 to $19.3 billion at year-end 1989). One of the points in a Senate hearing chaired by Senator Metzenbaum was that without its various surplus relief reinsurance treaties, EXL was technically insolvent in 1983. With all its surplus relief treaties disallowed in later years, EXL might have survived, even with its high percentage of junk bonds, if the default rate on these bonds stayed at historical levels and the bonds held to maturity.

EXL had a combination of policies with cash values subject to immediate withdrawal (for example, life insurance) and policies for which cash would be paid out over many years into the future (GICs, single-premium deferred annuities). EXL had enough funds to pay the demand deposits, but the regulators felt that the long term was jeopardized because of the uncertainties of junk bonds. This was the single biggest factor leading to the state takeover.

One final quote from the author accurately sums up his view of the whole situation:

> "Had (EXL) played it completely straight, everything might have worked out. But they did all kinds of sneaky and dishonest things . . . as is true with the corporate raiders and the entrenched managers they sought to displace, it's hard to tell which group of scoundrels is worse."

ANTHONY B. RICHTER

Robert J. Myers (with Richard L. Vernaci), *Within the System: My Half Century in Social Security*, pp. x + 263, published by Actex Publications, Winsted, Connecticut, 1992, $19.50.

This splendid book by our illustrious Past President tells of his remarkable career in public service and also appraises the influence of many American politicians whose names are familiar to us. Its nine chapters may be considered in six segments:

Chapters 3, 4 and the poorly titled Chapter 5 cover Bob Myers' years from birth to 1945. He brings us through his ancestry and his childhood, his Lehigh years during which he went to Philadelphia to discover what an actuary was, his time at the University of Iowa taking the eminent Professor Rietz's actuarial course, and his double good fortune: first, to meet Rudy McCoy, now his wife of 54 years, and second, to fail in his effort to find employment in a large life insurance company, thus unwittingly keeping himself available for a temporary post in 1934 with the actuarial consultants to the Committee on Economic Security in Washington. These were the people just appointed to study how best to create the nation's social security system. Myers' work, though brief, led to his lifetime career in that venue.

Chapter 6 covers the events of the 1950s and 1960s. Those were years in which Myers steadily established his reputation as knowledgeable, honest and helpful in his dealings with Capitol Hill. He gives Congress credit for having recognized that Social Security must always be kept financially solid "despite wide differences of opinion over what that system ought to be, how much it ought to cost, to what extent it should protect our citizens, and to what extent they must take the responsibility for protecting themselves."

The period up to 1972 was marked by the Congressional practice of increasing benefits by arbitrary percentages that usually bore some relation, says the author, to changes in the Consumer Price Index and also to the money available. (He seems to take for granted that a percentage change arrangement is appropriate for recognizing increases in the cost of living, a debatable proposition in this reviewer's mind.)

Chapter 7 outlines the circumstances that compelled the author to resign in 1970 from his post as Chief Actuary of the Social Security Administration on, as the chapter title puts it, "A Matter of Principle." This was a protest move against persons who were pressing for expansion of benefits beyond the magnitude that had been traditional and that Myers considered adequate. The author's description of the episode at the time was printed in *TSA* Volume XXII (1970), p. D313.

Myers thus became free to serve as the world's premier Social Security consultant while keeping closely in touch with unfolding Washington events.

The need for his services soon was clearly urgent: first, difficulties with an automatic formula for benefit increases adopted by Congress in 1972—see "The Unresolved Decoupling Issued," *TSA* XXIX (1977), p. 429—and then by a crisis in the early 1980s to which Myers devotes his first two chapters.

Chapters 1 and 2 tell of the events of the stormy 1980s, beginning with the threatened slashing of benefit payments if the right remedial steps were not taken quickly. A National

Commission on Social Security Reform was put to work to avert that disaster. Myers' determination to be at the scene of action caused him to resign his then-current post in December 1981, and the need for his expertise brought him where he wished to be, that is, as Executive Director heading a small staff to advise the Commission. The Commission's task was completed in January 1983, "at the last possible minute" as the author succinctly puts it.

Chapter 8, setting forth the impressive list of countries around the world whose officials turned to Myers for advice on establishing and maintaining their own social security systems, is partly why this review could bear the title "An Actuarial Ulysses." Tennyson put words onto Ulysses' lips that surely apply to this author:

> Much have I seen and known: cities of men,
> And manners, climates, councils, governments,—
> Myself not least, but honored of them all . . .

Chapter 9, "It Will Outlive Us All," eloquently expresses the author's conviction about the system's future.

Although this book has been written primarily for general readers, actuaries will be well served by perusing it, provided it is not the only one of this author's many works—including his *Social Security,* now in its fourth edition, and a multitude of papers in the *Transactions*—that they study.

This reader would have preferred that *Within the System* had been written by Myers alone rather than "with" someone else. It is too difficult to decide who wrote some of the remarks therein, particularly the opening sentence of Chapter 1 ("I had a dirty little secret, and I was praying that no one was going to ask about it."); although put there for an admirable purpose, it strikes a jarring note. But let us not cavil further. Senator Moynihan (in his Introduction) rightly describes Bob Myers as a national treasure; we would be the losers if he had failed to bestow upon us this account of his life's work.

ERNEST J. MOORHEAD

Harry H. Panjer and Godon E. Willmot, *Insurance Risk Models*, pp. 442, published by Society of Actuaries, Schaumburg, Ill. 60173, $35.

Insurance Risk Models is a textbook dealing with the distribution of aggregate claims for an insurer. The book evolved from course notes used by the authors in teaching risk theory courses in the actuarial science program at the University of Waterloo. As a result, drafts of the text have been tested on hundreds of undergraduate and graduate students, and their feedback certainly has helped the authors refine the text and make it more understandable to actuaries not well versed in the subject. This book will continue to play an important role in actuarial education. Certain chapters are required reading for

elective Course 152, "Intensive Seminar on Risk Theory," of the Associateship education and examination structure. The material in the book provides a natural transition from the chapters on risk theory in *Actuarial Mathematics* [2], which is a standard textbook known to all current actuarial students studying for their Associateship. Even the mathematical notation used in each text is almost identical. Funding for this textbook was provided by the Actuarial Education and Research Fund (AERF).

Insurance Risk Models offers a very practical orientation to working with loss distributions and real insurance data. The basic theme is that the distribution of aggregate claims for an insurer can be computed by simple recursive algorithms for a wide range of claim incidence models with any loss severity distribution. Even with high-speed computers, it is generally impractical to use convolutions in calculating exact solutions because of the computer time required. The recursive algorithms presented in this book allow the user to calculate exact solutions to problems whose solutions in the past could only be approximated. The book can be used as an up-to-date reference to the literature on numerical techniques for solving this class of problems. Compared to other related texts on risk theory, this text is probably the most practical in its approach. Theory is developed and numerous examples are presented for dealing with problems unique to various branches of insurance, such as individual and group life insurance, group health insurance, resinurance, and property and casualty insurance. Clearly, *Insurance Risk Models* is intended not only for the actuarial student or researcher but also for the practicing actuary in either the insurance company or consulting environment.

To master this book, the reader needs some knowledge of probability theory and calculus. Chapters 1–4 provide the basic mathematical and statistical tools that are used in the remaining chapters. Most theoretical results are derived by using Laplace transforms and moment (and other) generating functions. A good reference for the scores of continuous and discrete distributions used in the subsequent chapters can be found in Chapter 4. Chapter 5 deals with the "individual risk" model with its applications in life insurance. Chapters 6–9 deal with the "collective risk" model with its applications in nonlife branches of insurance such as health, property and casualty, and reinsurance. Chapter 6 focuses on the Poisson, negative binomial, binomial, and other related distributions for claim incidence. Generalizations based on compounding and mixing are given in Chapters 7 and 8. Chapter 9 deals with the problems of selection, fitting and validation of distributions. Chapter 10 develops simple analytic formulas for the extreme right-hand tail of the distribution of aggregate claims. Chapter 11 deals with approximate and exact calculations of ruin probabilities based on the tools developed in previous chapters. Exercises are provided at the end of most chapters to emphasize the techniques developed and to expand on the possible results that can be derived from the theory.

The only shortcoming of the text is its lack of graphics and other illustrations. These would have enhanced its educational and practical value greatly. No sample computer programs were included in the Appendix to illustrate the computational techniques developed, but the methods in the book can be easily programmed in any language.

The authors are to be congratulated for their excellent work, and the Society of Actuaries is to be thanked for sponsoring publication of *Insurance Risk Models* through the AERF.

THOMAS J. LIVORSI

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A. Haeworth Robertson, *Social Security: What Every Taxypayer Should Know*, pp. xxiv + 321, published by Retirement Policy Institute, Washington, D.C., 1992, $40.

This book dealing with Social Security—where the term is used in the broad sense to include both Old-Age, Survivors, and Disability Insurance (OASDI) and Medicare—is largely very objective and educational. However, the average reader, or even the actuarial one, may not discern the thread of subjectivity that runs through it. The book is appropriately dedicated to "the actuaries of the Social Security Administration and the Health Care Financing Administration who endeavor tirelessly to provide the financial information needed to ensure that Americans will be able to keep the financial promises that one generation imposes upon another."

Mr. Robertson has felt impelled to write this book because he is convinced that the general public is badly misinformed about the underlying nature of the Social Security program. He further feels that, if they did understand it, they would demand significant, sweeping changes. This is a very subjective matter. This reviewer is convinced that most people are satisfied with the system—as is evidenced by public-opinion surveys—and need only slightly more education about it. Also, they very likely do not desire all the interesting and thoughtful analytical presentations in this book.

This reviewer does not wish to be considered an elitist, but the fact remains that people are content—and properly so—with only general knowledge about the many complex

elements of our modern social and economic lives. For example, how many people know—or either wish or need to know—what makes a television set operate? What they are interested in is knowing how to operate it, with the expectation that it will function faithfully when needed. And this applies as well to the Social Security program.

This book, however, will be interesting, informative, even essential, reading for students of both Social Security and the general economy, as all actuaries should be.

The book was written on the basis of the situation prevailing in early 1990, including the actuarial estimates in the *1990 Trustees Reports*, even though it was not published until May 1992, by which time two additional *Trustees Reports* had been issued. The program changes legislated since early 1990 are summarized in an Appendix. As it turns out, the later actuarial estimates show somewhat less favorable pictures than the 1990 ones, tending to reinforce Robertson's pessimistic conclusions about the status of the Social Security program.

In passing, this reviewer is constrained to say that the book contains a number of factual errors and omissions. This is said recognizing that, for complicated programs, some details must be omitted for reasons of space. Yet, within such confines, precision and accuracy could have been better achieved. A listing of 43 such items is available from the reviewer (at his *Directory* address).

One example is that there is no mention of this increase in the Supplementary Medical Insurance annual deductible from $75 to $100 in 1991. Another is that the peak value of the OASDI Trust Funds (incorrectly referred to as "the Social Security trust funds," which term also includes the two Medicare trust funds) is $12 trillion some 40 years hence. Actually, the $12 trillion figure is from the *1989 OASDI Trustees Report* (intermediate estimate), while the figure from the 1990 report, which is Robertson's baseline, is $9.2 trillion (and is only $5.6 trillion if taken from the 1992 report).

Robertson states that "one important reason for adopting Social Security in the first place was to alleviate the hardships of the widespread unemployment that prevailed in the 1930s." This statement—although often made by many—is not true. If that had been a major purpose of the 1935 act, then it was poorly designed. No monthly retirement benefits were to be payable until 1942, and then at a relatively low level, so that few persons would be strongly encouraged to retire solely to receive benefits. The major reason for establishing the program was to begin providing a floor of economic security in old age.

Chapters 2 through 7 give basic background information about the benefit and financing provisions of the OASDI, HI, and SMI programs. Also given are both past experience and future projections of their costs in terms of percentages of taxable payroll, according to the intermediate estimates. Further, the funding practices are cogently described, including the concepts of "actuarial deficits" and "accrued liabilities," as well as the significance thereof. Robertson points out that both OASDI and HI are not financed adequately over the long range, and that taxpayers should be made aware of this so that something can be done about the situation. However, it is not pointed out that the vast

majority of this deficiency is due to HI. In this reviewer's opinion, Medicare may not be in existence after a decade or two, being replaced by some sort of national health-care plan.

The next 14 chapters present interesting commentaries on various topics. In particular, Chapter 8 gives Robertson's basic view that the public does not understand the nature and operation of the Social Security program. Chapter 9 then goes on to point out the "promises" inherent in the program and the role of the actuary in preparing long-range cost estimates, so the public can be informed as to whether these promises will be fulfilled.

Chapter 10 examines the assumptions that are used in the OASDI actuarial estimates. It is clearly pointed out that "it is not a question of selecting the correct assumptions, since that is clearly impossible." Rather, Robertson believes that the assumptions are made so that, over the long range, one can assess whether "future income will likely be approximately equal to future outgo." He concludes that the pessimistic assumptions are the most appropriate and that even they may be somewhat optimistic, despite the fact that the actuaries at the Social Security Administration (for whom he expressed admiration in the dedication of the book) chose the intermediate assumptions as the most likely.

One assumption that Robertson believes to be too optimistic is the ultimate fertility rate (the average number of children that would be born to a group of women during their lifetimes if they were to experience the particular birth rates, by age, for a given year). He notes that the rate of 1.8 used in the *1990 Trustees Report* was the average for 1975–89, but he believes that this probably is too high and that the rate of 1.6 in the pessimistic estimate is more appropriate and may even be optimistically high. Note that an ultimate rate of 1.9 was used in the 1992 report, and actual experience in each year of 1990–92 was 2.1

Chapter 11 deals with whether people get their money's worth from the Social Security program. It rightly points out that the question can be answered from several different viewpoints, with different results. Robertson concludes that people may have gotten their money's worth in the past, but they will not in the future because "we will be using our tax dollars to buy benefits that are inappropriate." The stated reasons for this belief, with which the reviewer disagrees, are that retirement patterns are dictated by the program's provisions (although these can be changed) and that the program discourages individual initiative and private savings for retirement.

Subsequent chapters treat such subjects as (1) the appropriateness of the earnings test, (2) the proper minimum retirement age, (3) the integration of private pension plans with OASDI, (4) the desirability of automatic adjustment of benefits, (5) whether Social Security should cover everybody (and, if not covered but eligible to opt in, should this be done—probably yes), (6) whether Social Security benefits are sufficient by themselves (generally not), (7) how Social Security—probably undesirably—is a determinant of behavior, and (8) Medicare (but without giving "solutions" to its problems or the larger

ones for the entire nation's health-care financing problems). Robertson attempts to present all sides of the various complex matters, and succeeds reasonably well.

Perhaps the most important part of the book is the last three chapters, which deal with the future outlook for the several parts of the Social Security program. Robertson believes that, although higher payroll taxes may be required, the public will object and more general revenues will be used to finance the program. He believes (as does this reviewer) that part of the problem can, and should, be solved by raising the normal retirement age (the minimum age at which unreduced benefits are payable). Further, he fears that, with continuing inflation (especially if at a high level), the nation's economic security needs will be met less by the private sector and more by governmental programs. He recognizes that the Medicare program may be changed beyond recognition in the next decade. Thus, it may not be financed on a payroll-tax basis; then the deficit problem will be shifted to other, perhaps more difficult-to-analyze, bases.

Robertson's conclusions are somewhat surprising in view of his generally objective approach throughout the book. He believes that "There is no reason for this country to continue with a social insurance system that is so controversial and unpopular and whose financial status must constantly be debated." This reviewer does not agree with the view that the program is controversial and unpopular and further believes that debate about its financing is very healthy.

It is interesting that in the commentary on the back of the dustjacket Milton Friedman, a Nobel laureate economist, refers to the book as "an extraordinary accomplishment" and then goes on to state that "As Mr. Robertson says, it [Social Security] needs at the very least a 'massive overhaul,' and preferably, despite his statement to the contrary, complete termination." This reviewer believes that Robertson, in saying that Social Security (1) is not "understood" by the citizenry, (2) is not perceived of as "fair and reasonable" by the majority, and (3) "hinders the attainment of a healthy and productive national economy," has a great responsibility to give details as to how he would restructure both OASDI and Medicare. However, he does not do so.

ROBERT J. MYERS

A. Haeworth Robertson, *Social Security: What Every Taxpayer Should Know,* pp. xxiv + 321, published by Retirement Policy Institute, Washington, D.C., 1992, $40.

Social Security is Mr. Robertson's second book on this subject of importance to us all. It covers a wide variety of topics, illustrating how the Social Security program penetrates our lives in many ways. As the title implies, it is written in an informal style so that nonactuarial taxpayers will find it readable. Robertson includes both Old-Age, Survivors, and Disability Insurance (OASDI) and Medicare (HI and SMI) in his definition of Social Security, because both of these programs involve long-range debate about whether OASDI and Medicare should be considered separately or together; I agree with Robertson's approach. It is too easy for people in power to say that one program is in good financial shape, while hiding the fact that the other program is heading for disaster.

I would go even further, saying that the Federal Government should make long-range projections of all of its obligations.

Social Security is divided into three parts: (1) "Introduction," (2) "Basic Background Information," and (3) "Commentary on Selected Topics." Part 2 attempts to "present systematically the basic background information necessary to understand what Social Security is, how it works, and what is costs," while Part 3 delves into too-often-ignored or controversial aspects of Social Security. In practice, I found that Robertson occasionally crossed the self-imposed boundaries, adding his opinion on some matters in Part 2 and presenting some background material in Part 3.

The six chapters in Part 2 explain the coverage provisions and trust fund operations and administration (Chapter 2), the benefit provisions (Chapter 3), historical and projected costs (Chapter 4), sources of trust fund financing (Chapter 5), current cost financing versus advance funding (Chapter 6), and actuarial deficits and accrued liabilities (Chapter 7). Robertson explains the OASDI and Medicare benefit provisions in the 17 pages of Chapter 3. Textbooks on the subject have taken hundreds of pages for the same explanations, so obviously Robertson had to make simplifications and leave out some details. I found only a few places where his simplifications resulted in misunderstanding or confusion about whether he was talking about OASDI alone or OASDI and Medicare combined.

I especially like the subsection entitled "Advance Funding of a National Social Insurance System" in Chapter 6. Robertson explains step-by-step how the government's general fund interacts with the Social Security trust funds when the trust funds are advance-funded. Because the trust funds invest only in government bonds, the government has use of the trust funds' money, commingling it with regular general revenue, during the period of trust fund buildup. When the trust funds are drawn down, the government must collect more in general revenue or borrow more from the public than would have been necessary otherwise. As a result, "tomorrow's generations of taxpayers, considered as a whole, would pay the same total amount of taxes to support Social Security—Social Security taxes and general taxes—as if there were no fund." This is an important point that is generally misunderstood.

Robertson leaves out most references to his facts and statistics, in keeping with his nontechnical style. The references he does include are in a separate section at the end of the book. I would prefer more references, especially for some of the more obscure figures. After checking numerous statements, however, including those challenged by other reviewers, I found only two small factual mistakes. In many areas the discussion could have been expanded to cover omitted details, but that would have spoiled the nontechnical style.

There are also some brief unreferenced statements that seem to be the summary of original technical work, such as the following (p. 121): "If taxpayers had paid the full cost of benefits accruing during the past fifty years, their taxes would have been more

than twice as much as were actually paid." This is an intriguing statement that deserves a technical explanation in an actuarial journal, if not in this book.

The 17 chapters of Part 3 cover subjects such as actuarial assumptions (Chapter 10), whether particpants get their money's worth from Social Security (Chapter 11), the earnings test (Chapter 12), Social Security as a determinant of behavior (Chapter 18), and the outlook for Social Security (Chapter 22). These chapters average only about 10 pages each, in keeping with Robertson's goal of educating the nontechnical taxpayer. The result is text written in an easy-to-read style and filled with facts, statistics, and opinions; however, the reader is sometimes left yearning for fuller explanations or guidance.

Chapter 22, entitled "What Is the Outlook for Social Security," is a summary of Robertson's vision of the future, not only of Social Security but also of the society that shapes it and is shaped by it. First, taxes will go up substantially unless benefits are cut. He expects that benefits will be cut, but only to slow the increase in cost. Second, when costs begin to rise quickly, the payroll tax will cease to be virtually the only source of tax revenue for the program. (As I write this, President Clinton has just proposed increasing the income tax on Social Security benefits; proceeds from that income tax are diverted back to the Social Security trust funds. I agree with Robertson that pressure to maintain the move away from payroll taxes will continue to increase in the 21st century.) Third, he expects that employees will be working longer and retiring at higher ages. If this happens, it will be only after a wrenching turnaround from present trends. Fourth, the Medicare program as well as the nation's entire health-care system will be changed beyond recognition during the next ten years (1991–2000). As of 1993, this vision seems to be on track. Robertson's statement closing the chapter is worth repeating:

> "One of the reasons to forecast the future is to enable its change. It is still up to us to shape Social Security so that it is appropriate for tomorrow's environment—so that is provides a system of benefits consistent with our needs and our ability to pay for them. The outlook for Social Security, then, is whatever we desire—and have the courage to achieve."

This book is a worthy addition to the social insurance literature. It is not a dry explanation of all of Social Security's details; you should go elsewhere for that. It is a thought-provoking book written by one of our most forward-looking Social Security experts, in an attempt to "ensure that Americans will be able to keep the financial promises that one generation imposes upon another."

STEVEN F. MCKAY

Social Security Notes

Michael D. Clingman and Jeffrey L. Kunkel, *Average Wages for 1985–90 for Indexing under the Social Security Act*, pp. 8, Actuarial Note No. 133, Social Security Administration, Baltimore, Md., September 1992.

Describes the determinations of the national average wage for 1985–90, used to index earnings taxable under Social Security. The average wage also is used to index the earnings intervals (or "bend points") in the formulas for computing Primary Insurance Amounts and maximum family benefit amounts, as well as to index other program amounts such as the OASDI contribution and benefit base.

Social Security Studies

Steven F. McKay, *Short-Range Actuarial Projections of the OASDI Program,* 1991, pp. 190, Actuarial Study No. 104, Social Security Administration, Baltimore, Md., October 1991.

Describes the methodology used to estimate the future financial operations of the Old-Age, Survivors, and Disability Insurance program in the short range. Although the projections are shown in the *1991 Report of the OASDI Board of Trustees to Congress* only on an annual basis, this report shows most of the figures on a quarterly basis.

Alice Wade, *Social Security Area Population Projections: 1991,* pp. 51, Actuarial Study No. 106, Social Security Administration, Baltimore, Md., February 1992.

Describes the population projections that underlie the long-range cost estimates for the Old-Age, Survivors, and Disability Insurance (OASDI) program, which are included in the *1991 Report of the OASDI Board of Trustees to Congress.*

Felicitie C. Bell, Alice H. Wade, and Stephen C. Goss, *Life Tables for the United States Social Security Area 1990–2080,* pp. 106, Actuarial Study No. 107, Social Security Administration, Baltimore, Md., August 1992.

Displays life tables based on historical and projected mortality, and describes methodology and data used in deriving the tables. This projected mortality was used in estimating the future costs for the Old-Age, Survivors, and Disability Insurance (OASDI) program included in the *1992 Report of the OASDI Board of Trustees to Congress.*

Eugene B. Yang and Stephen C. Goss, *Economic Projections for OASDHI Cost and Income Estimates 1992,* pp. 124, Actuarial Study No. 108, Social Security Administration, Baltimore, Md., December 1992.

Describes the economic assumptions and projections that were used in the preparation of the *1992 Trustees Report.* This is an update of Actuarial Study No. 101, which was released in May 1988. Newer data are included in the present study. Methods and assumptions have been modified slightly.