The Actuary

June 1976 – Volume 10, No. 6

The Actuary
The Newsletter of the Society of Actuaries
VOLUME 10, No. 6 JUNE, 1976

CLUB OF ROME

Mihajlo Mesarovic and Eduard Pestel, *"Mankind at the Turning Point: The Second Report to the Club of Rome"*, E. P. Dutton & Co., Inc./Reader's Digest Press, New York 1974, pp. xiii, 210, $4.95.

by D. S. Williams

The Mesarovic-Pestel study was initiated by the Club of Rome with the specific objective of meeting the more serious criticisms levelled at the original study, the Forrester-Meadows "Limits to Growth" report. Apart from the essentially philosophical ones, three criticisms respecting the world model stood out:

(1) The world cannot be properly represented as a single monolithic system.

(2) The "Limits to Growth" study did not make adequate allowance for man's capacity to adapt to changing circumstances.

(3) Several aspects of the system of equations representing the world model gave rise to sharp debate, reflecting the fact that the functional relationships linking many of the variables are often highly complex and little understood.

To overcome these criticisms, Messrs. Mesarovic and Pestel developed the following approach:

(1) The world system is represented as a set of ten interdependent regional subsystems, reflecting the political, economic and cultural patterns peculiar to each.

(2) The computer model incorporates an "interactive" scenario analysis feature. As a scenario unfolds over time, the designer periodically evaluates the effect of previous incremental inputs before selecting input for the next time period. The designer can, in this way, decide on priorities, costs and risks to be taken at each stage as the scenario is played out. Analysis of a set of scen-

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Social Security

Mr. Robert J. Myers has prepared an up-to-date issue of his *Summary of The Provisions of The Old-Age Survivors and Disability Insurance System, The Hospital Insurance System and The Supplementary Medical Insurance System.* Free copies of the booklet may be obtained by writing to Mr. Myers at 9610 Wire Avenue, Silver Spring, Md. 20901.

VETERANS' GROUP LIFE INSURANCE

by Donald C. Pailler

The Veterans' Insurance Act of 1974, by introducing Veterans' Group Life Insurance (VGLI), made major changes in the SGLI conversion privilege. Before then the terminating serviceman had the privilege of converting his regular group life insurance to an individual policy issued by any of the almost 600 companies then participating in the SGLI Program. The cost of these conversions to the issuing companies, arising from the high mortality under conversion policies they were obliged to issue at standard premium rates, was transferred to the SGLI group policy through the operation of the SGLI Conversion Pool.

With the advent of VGLI, a separating serviceman now has the privilege of converting his coverage within the SGLI Program only to VGLI. This is not an alternative to the group conversion privilege; it is a substitute for it, postponing the actual conversion to the end of the VGLI term. The separating serviceman whose SGLI group coverage is terminating does not have a right to convert it with one of the SGLI companies. Of course, he may apply for or be sold regular new business insurance with any insurance company. Generally

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BOLESLAW MONIC PRIZES

Boleslaw Monic Disability Insurance Prize Book, published by Nederlandse Reassurantie Groep M.V., Amsterdam, 90 pages.

by Jarvis Farley

Boleslaw Monic was a European actuary of international repute, and a founder of ASTIN. On his death in 1967 there was founded in his memory the Boleslaw Monic Fund Foundation, with the objective of promoting research in insurance problems.

On three occasions the Foundation has offered prizes for papers on stated subjects. The most recent contest invited papers in response to the following question:

"If long term non-cancellable disability insurance at fixed premium rates is considered not to be technically feasible and it is thought necessary for the private insurer to retain the right to adjust premiums in the light of changing circumstances (but with the right to cancel the policy only if the policyholder does not accept the increase), how can the need for such adjustment be diagnosed in good time and how can the amount of the adjustment be determined by actuarial methods and/or methods based on credibility theory? Attention should also be given to the use of these methods as regards adjusting the reserves carried on the balance sheet in case a deterioration of the risk is revealed."

In July 1975, the Committee of the Boleslaw Monic Foundation announced that the prize winners were Philip Giles, F.F.A., of Scotland, and C. H. Khury, F.C.A.S., and John H. Miller, F.S.A., F.C.A.S., of the United States. Mr. Khury had previously won a Monic prize in 1971.

The three papers are published in this book, together with a fourth paper by

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Veterans Group Life Insurance

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VGLI is available only to regular active-duty, full-time servicemen at the time of their separation.

VGLI is a five-year non-renewable term plan of insurance, within the SGLI Program, administered by the Office of Servicemen's Group Life Insurance (OSGLI). The serviceman separated or released from active duty must apply to OSGLI and pay the first premium for VGLI before the termination of his SGLI coverage; at the end of the 120-day or one-year disability extension. OSGLI acts as the insurance company under VGLI, issues a certificate outlining the coverage, bills and collects premiums, maintains records of addresses, beneficiary and other necessary information, settles claims and provides the assistance necessary for the conversion of VGLI.

Currently the VGLI premium rate for $20,000 is $3.40 monthly for issue ages below 35, $6.80 at 35 or higher. As un-[illegible] SGLI, there is no restriction on [illegible]o may be named as beneficiary, and if no one is named, the order of precedence of beneficiaries provided by the SGLI law goes into effect.

Just prior to the expiry of the VGLI term, the veteran receives a conversion privilege notice which includes information concerning conversion, instructions for exercising the privilege, a list of companies to which application for conversion may be made and a document to be presented with his application evidencing the VGLI conversion privilege. No further evidence, such as separation papers, DD214 or other, is necessary.

The veteran is advised to choose and contact a company or its agent, and to apply and pay the first premium before the expiry of the conversion privilege (the end of the VGLI term of coverage). As under the group conversion privilege, the "dual application" system may be used. Under it the applicant will complete a regular new business application [illegible]ith health questions as required by the [illegible]mpany, as well as a conversion application. If a new business policy no less favorable in any respect than the conversion policy (to which he is entitled) may be issued, this policy goes into effect in lieu of the VGLI conversion policy.

If the serviceman cannot so qualify or is unwilling to give evidence of insurability, a VGLI conversion policy will be issued. It will be included in the SGLI Conversion Pool, as was a policy issued under the original SGLI conversion privilege at separation. The company reports the policy to the Pool, receives approval from OSGLI, issues and thereafter administers the policy directly with the insured and handles it as reinsurance ceded to the Pool.

VGLI first became effective on Aug. 1, 1974. Servicemen separating on and after that date have enjoyed the VGLI privilege outlined above. VGLI was also extended on a retroactive basis, to the extent that their SGLI had not been converted, to servicemen whose SGLI had terminated four or less years earlier. Under this retroactive coverage the VGLI term insurance continued for the balance of a five-year period remaining after termination of his SGLI. Thus, a minimum term of one year was established for retroactive VGLI. To qualify for this extension, the serviceman was required to produce satisfactory evidence of insurability, although a service-connected uninsurability was waived and the cost of waiving it was borne by the government, as policyholder, rather than by the servicemen as part of their cost of the SGLI Program. The enrollment period for retroactive VGLI expired Aug. 1, 1975.

In 1974, at the introduction of VGLI, the SGLI companies saw a drop in conversion activity. Those policies previously issued and placed in the Pool as SGLI group conversions remained in force, with the Pool premium and claim activity continuing, but with no new separating servicemen converting and entering the Pool. In September 1975, as the earliest retroactive VGLI issues with the minimum term periods began to expire, VGLI conversion privileges began to emerge and VGLI conversions were issued and placed in the Pool. These issues will increase in volume until an ultimate level is reached when the VGLI coverage on the first servicemen separating under VGLI begin to expire in December 1979 (60 months after the end of their 120 day SGLI extension). □

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arios can then provide some insight into the breadth of options available to mankind at different points in time. (Aside: Does your corporate model include this feature?).

(3) The model was "repeatedly" studied by the scientific community at major international conferences. Several dozen scientific reports on all aspects of the project are available upon request from I.I.A.S.A. (International Institute for Applied Systems Analysis, Laxenburg, Austria). In this way, interested authorities have presumably had the opportunity to influence at least the parameters incorporated in the model, if not its basic structure. Approaching the project in this way no doubt served to allay much of the criticism from other scientists that was directed at "Limits."

From their work with the model, the authors develop the conclusion that unregulated world growth over the next 50 to 100 years will lead to disaster. They put forth as an alternative the concept of "organic" growth, i.e., an approach which preserves the world's regional diversity of cultures by pursuing region-specific paths of development. The utopian result would be a sustainable balance among these interdependent regions, and thus global harmony.

Much of the book is related to several aspects of predominant importance, and some of the resulting recommendations arising from work with the model are surprising.

For example, with respect to the energy crisis, the authors argue that the ultimate solution does not lie in nuclear technology, which would tend to perpetuate the large and increasing gap between the have and have-not nations, with the accompanying disproportionate and profligate use of increasingly scarce global resources. The best solution overall is held to be via solar energy. Construction of the necessary solar energy "farms", which would cover perhaps 1% of the world's surface, would admittedly be an enormous undertaking. However, it would be safe low-impact technology, and the tropical distribution of these "farms" would facilitate development

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LETTERS

Asset Valuation

Sir:

Mr. Berin's attitudes on Asset Valuation (*The Actuary,* Apr. 1) reflect the classic attitude that "book value" is a sacrosanct measure of value which needs no defense, but any alternate basis must be justified. My own judgment, on the contrary, is that market value is clearly an acceptable measure of value, and that any alternative — including book value — must be justified.

The total unsuitability of book value as a point of departure can be seen if we note that the book value of an asset is typically its purchase price, i.e., its market value at its date of purchase. Why should the aggregate of "*acquisition date* market values" be, in any sense, more suitable than the aggregate of "*valuation date* market values"?

The advocate of book value as a proper measure of value scorns market value as being "the arbitrary value on a particular date" — but fails to acknowledge that the same comment applies to each asset's purchase price, or book value.

We have had far too much effort at adjusting book value, and not enough thought to adjusting market value. We have had too many methods that prove their unsuitability by producing asset values in excess of *both* book value and market value under certain conditions.

For my part, I prefer (in pension valuation contexts) to value assets at market, and rely on spread-gain valuation methods and/or 15-year amortization periods to smooth the impact of investment fluctuations on annual pension contribution requirements.

For those who cannot bring themselves — or their clients — to deal with market value unadulterated, I would suggest that the heart of the problem is *fluctuation in investment results* — this is the cause of fluctuation in market values. Accordingly, the solution lies in identifying a portion of each year's actual investment results as Investment Fluctuation, and establishing an Investment Fluctuation Reserve *as an offset to market value.* The range of judgment here is substantial.

If it appears that the magnitude of the Investment Fluctuation Reserve is constantly increasing, we can then — with hindsight — question whether we have truly been dealing with fluctuation, and make suitable changes in our approach as warranted.

Once we start with market value as the point of departure, our profession will be more in step with reality — and the law.

David R. Kass

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Sporting Notes

Sir:

Mr. Nix' "Sports Section" letter to the Editor (March 1976) spurs me to add a plea for the hikers and mountain climbers. There are quite a few in the Society, you know, and they too, deserve "equal time" for Society-sponsored attention, along with the bridge players, the tennis players and now the golfers.

Then, of course, there are those of us who also enjoy a spot of sailing and white water paddling. Not to mention the skiers and cross-country snowshoers. We have not a few rock hounds, and it is possible we have more than a few talented soccer players and semi-retired hockey veterans. Rugby football and American football games could easily be organized among the halfbacks, quarterbacks and crossbacks in our ranks, and no Society meeting can be complete without at least a regional baseball playoff. Then there's handball, paddleball, and basketball to take care of, and water polo, curling, and others.

Perhaps future meetings of the Society should be arranged largely according to the ability of the sites to accommodate our athletic interests. Montreal would be a natural; Winnipeg, Banff, Denver, Vancouver, Yosemite also come to mind.

Our programs would undoubtedly become of much greater interest to the industry as a whole, and to our marketing and executive brethren in particular. With a properly organized roster of sports events, there'd be little need to develop a program of workshops and panel discussions — there would be few persons left over to run them or attend them.

So here's to more and better meetings, and leave the business of life insurance (or pensions or health, or whatever) to the accountants, the attorneys, and the computer people.

Alex Marshall

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of a balanced global economy. (One can visualize this proposal, sitting in a government pigeonhole, diaried for follow-up on 1/1/2000).

Also covered in some detail is the population problem, which is already approaching crisis in South East Asia. The major question now is whether the reduction in growth rate will result from a deliberate population policy or from Malthusian checks. In this respect, one of the book's Appendices contains two briefs of particular interest to demographers. The first deals with age structure and population growth in the various world regions, and explains the concept of a stationary population. The second brief, "Starvation and Mortality", points out that, in the developing countries, the most critical short-fall is occurring in the supply of protein. It indicates that an age-specific mortality multiplier was determined in the form of a nonlinear function of relative protein deficiency, but it does not provide any further details of this aspect. To learn these, the reader must refer to the background scientific papers, which are listed in the bibliography. One wonders whether actuaries were involved in the preparation of these papers.

A closing commentary by Alexander King and Aurelio Peccei offers a modestly optimistic outlook. There are signs that awareness of the fundamental problems is growing with surprising speed at the "grass-roots level." This is where the situation will ultimately be resolved, at least in this reviewer's opinion. From a realistic standpoint, national policy-makers can be expected to do little more than to provide their citizens with the necessary knowledge and the freedom, together with some modest incentives, to make the right decisions. □