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GROWTH: MAN'S DREAM, MANKIND'S NIGHTMARE

Dennis L. Meadows et al., *"The Limits to Growth,"* The New American Library, Inc.. New York, 1972, pp. 207+xvii, $1.25 (paper).

by David S. Williams

In dealing with the complex problems of today, actuaries are careful to avoid a relatively common pitfall. If a problem is approached with too narrow a perspective, the resulting attempts to solve it will fail. A broader viewpoint is particularly important in dealing with long-range problems. This principle is always better appreciated in retrospect—for instance, as we work to rehabilitate pension benefit formulas emaciated by the effects of inflation.

By the same token, we cannot afford to ignore the message conveyed by this book, an account of the recent study conducted by an inter-disciplinary research team at MIT into the complex of current world problems caused by exponential growth. Such growth is the fundamental cause of five major trends of global concern—accelerating industrialization, increasing population pressure, rapid disappearance of unused arable land, depletion of non-renewable resources, and deteriorating environment.

These trends are projected using a mathematical model which is itself of considerable interest, since it is conceptually similar in many ways to models developed for corporate planning. A general description is provided of the model's workings and the mathematical techniques used in its construction, with a flow-chart of the model in formal Systems Dynamics notation. Further details are provided in the technical papers cited in the bibliography.

The book is devoted primarily to marshalling the relevant data, describing the underlying mathematical nature of these major trends and their components, and projecting them into the future using a variety of assumptions. The material is in general presented with scientific restraint, the sources are scrupulously documented, and the conclusions are frightening.

The problem can be summarized in a nutshell: a finite system cannot support an exponential pattern of growth. Even if recent rates of growth moderate, the sheer momentum of present social and economic forces threatens to overshoot the planet's carrying capacity in a very few decades. The study suggests that the most probable result of such an overshoot would be a relatively sudden and uncontrollable decrease in population and capital. How such a crisis would work itself out is unclear; expressed in human terms, the effects would surely be apocalyptic.

Can disaster be avoided? Only if national and international policies are rapidly and radically changed. Work with the model indicates the minimum set of requirements for a state of global equilibrium. Unfortunately, most of the world's major powers seem unwilling to suppress their own interests in favour of a global strategy. Is this the territorial imperative in another form? Of course, the policymakers may have considered the evidence but found it unconvincing. Or could it be simply another instance of narrowed perspective?

It is to be hoped that such an accusation cannot be directed at the members of our profession. We are self-styled futurists, using our mathematical skills to define, analyze, and solve complex business and social problems. We have embarked upon the wide-ranging Project 2 (see E. J. Moorhead's address *TSA* XXIV p. 65) with a view to countering the effects of those forces which are shaping our destiny. Yet how is it then that the MIT report, though published in 1971, has not been discussed at any Society meetings?

I suggest that the spectre of global catastrophe, now given shape and substance in this report, merits consideration as a "tidal force." A professional committee should be speedily appointed (perhaps within the Project 2 task force) to evaluate the report and the validity of the model upon which it is based. Assuming that the approach is basically sound, full-scale "revaluations" should be planned every year or two. The model's design is being steadily improved, the data base is rapidly enlarging, and some of the critical points (such as the world's per capita food supply) are close at hand.

Let's not be left behind on this one! □

Erratum

In the 1972 List of Members by Business Connection the following change should be made. The Folksam Insurance Group (Stockholm, Sweden) Ellis A. Wohlner should be listed in Section II Insurance Companies (other countries). It was inadvertently listed in Section X.

DEBITS? OR CREDITS?

Abraham J. Briloff, *"Unaccountable Accounting,"* Harper & Row, New York, N. Y., 1972, pp. 365, $9.50.

by Abraham Hazelcorn

Dr. Briloff's book appears at a time when actuaries have added GAAP prominently to their lexicon. His informative and provocative treatment centers on those situations which clearly did not fairly present financial statements, although certificates stated that they did, according to generally accepted accounting principles (GAAP).

Two of the chapter titles of "Unaccountable Accounting", by way of illustrating Dr. Briloff's style, are: "Alice in GAAP Land" and "Some More Flap in GAAP."

He shows himself to be an excellent teacher in presenting the concepts of accounting. While Professor Briloff (of the City University of New York) peppers his instructions with trenchant remarks throughout, he nevertheless gives the background to the ideals of his profession. He then deftly takes apart the perversion of these ideals which have led to landmark accounting cases.

A good combination for learning the concepts and hazards of accounting may well be the recently published insurance "Industry Audit Guide" and "Unaccountable Accounting." Part II of the "Audits of Stock Life Insurance Companies" is entitled "Application of Generally Accepted Accounting Principles." It would be well to reinforce this with Dr. Briloff's treatment of the '3 Rs: Revenue, Recognition, and Realization.

Dr. Briloff represents the consumer advocate in the arena of financial statements. His thrusts are aimed at protecting the reader of these statements from misleading presentations, no matter how and why these comply with rules which appear to have official sanction. He does this well.

However, his moralistic zeal may diminish his case. The impression may be given that the accounting rules could very easily have been corrected to avoid the portrayed disasters. In addition, this reader feels that at times Dr. Briloff blames accounting treatments instead of dishonest men.

I highly recommend "Unaccountable Accounting." It is informative, entertaining, and frightening. □