tion than fact. As Barnet and Müller point out, government is "crippled by the institutional lag in tax, banking and securities fields due to the 'technological breakthrough' in the accounting industry." In other words, there exists an informal understanding that companies involved in international trade shall police themselves. An unusually large reservoir of faith and forbearance in private enterprise is necessary to believe in the effectiveness of such a system.

One recalls the response of multinational corporations to the Johnson Administration's attempt to control the export of capital during the Vietnam war by the establishment of an export licensing system. Our major banks sprouted overseas branches like mushrooms after a rain, and proceeded to borrow and lend from the free-floating Eurodollars already out there. The painful face that U.S. authority could control the flow of foreign investment was finally abandoned by a now wiser Congress some years later.

The case of Volkswagen is also interesting. Beginning in the seventies, VW's market share started to tumble, particularly in the U.S. The old rigid, hierarchical chairman was removed and one of the "new breeds" was brought in. This one duly noted that, as the value of the dollar declined from DM4 to DM2.4, his company was facing financial disaster in its richest market. The new chairman, therefore, insisted on building a plant in the U.S. But workers' representatives, with a one-third share of the votes on the supervisory board, and the State of Lower Saxony, with a 20 per cent shareholding in the company, resisted and forced the resignation of the new prophet. Today VW sales in the U.S. have declined from more than 500,000 to 300,000 a year, and the company is prepared to see that halved again. Still worse, it seems that U.S. sales are being subsidized, anyway, to prevent the market from disappearing altogether. A U.S. VW plant seems unavoidable.

Surely, if a God of business exists, his name is Market Force. For the time being, the principal historical force available to counter a multinational company is another multinational company. For those wishing to peer beyond, to the battle of titans and Armageddon, one suggests investigating the possibilities of establishing a multinational company engaged in the production and (profitable) marketing of New Value Systems.

Mankind at the Turning Point: The Second Report to the Club of Rome by Mihajlo Mesarovic and Eduard Pestel

R. W. Behan

This book, like its antecedent, The Limits of Growth, describes a series of simulations of the world's behavior. In order to determine how the world behaves, the authors, again like their predecessors in Limits, have constructed a model of the world, in mathematical terms, and stored that model represent the world?

By altering the conditions in which a computer-model of the world operates—by creating various simulations or "scenarios"—one can anticipate how the real world might operate provided he keeps in mind one thundering question: How well does the model represent the world?

The characteristics of the model itself, in other words, enormously influence the various outcomes of altering the scenario conditions. When the Mesarovic/Pestel model fails to generate the doomsday outcomes of the Limits to Growth model, one can scarcely avoid recalling a New Yorker cartoon depicting an ebullient systems analyst: "According to our computer," he reports, "by the year 2000 everything will be just peachy."

The authors of Mankind at the Turning Point are not that sanguine, but by no means are they alarmist or apocalyptic. Their model is an entire order of magnitude more sophisticated than the Limits model. Instead of constructing a single amorphous and homogeneous Earth, Mesarovic and Pestel consider ten different regions, some of which need to grow and to grow dramatically, some of which would do well to strike an equilibrium, and some of which might better "un-develop" here and there. The authors are anxious, all right, but thinking people can share their anxieties. They want the world to be seen as an interdependent mosaic of interrelated regions and nations; they are almost desperate for cooperation to displace conflict among them; and the authors are in a hurry—delay or passive acquiescence to the status quo can only exacerbate the global crisis.

Limits to Growth was a physical-environment, antipollution argument for the cessation of global growth and economic development. It was precisely the kind of argument that enraged the Third World delegates to the U.N. Conference on the Environment in Stockholm: The pollution problem of hyperconsumption in the developed nations could be solved by a steady-state world, which, of course, would freeze the global distribution of wealth and guarantee that the problem of underconsumption in most of the world would last forever. Mankind at the Turning Point, almost perfectly to the contrary, is a human-environment plea for empathetic, compassionate, global cooperation in achieving an optimal level of global development, and scarcely mentions pollution at all. To my way of thinking, the book has its priorities in order.

Limits to Growth concentrated on symptoms; it played exceedingly well the compound-interest game, "if present trends continue," and predicted the dismal consequences of doing so. Mankind concentrates instead on the problem—the inequitable and intolera-
ble distribution of the world’s wealth; it suggests which trends we need to discontinue and which we need to accelerate.

There are, for all of that, some shared predispositions. Both books erect a fairly strict dichotomy of man vs. nature, and they both see a rigid finiteness and fixity of natural resources. Limits goes on to make the nonsensical most of the assumptions (both of which are demonstrably wrong, I think), but the Mankind authors, through either oversight or wisdom, fail to complete the conventional argument. By the end of Chapter 2, Mesarovic and Pestel have committed all their errors: they assert “cancerous” growth in Chapter 1—but overlook the strata, even in the U.S., of stark underconsumption; and they assert resource scarcity in Chapter 2—but fail to distinguish between physical quantities and contrived scarcities (cf. the oil situation). But they choose not to extend those assertions; they virtually ignore them as subsequent chapters raise different issues and substantially more important ones.

Chapter 3 asks us to take a “systems” view of the world, but in an unusually comprehensive way. We know that the physical world is all hooked together—touch a flower, disturb a star—but Mesarovic and Pestel ask us to see that the social world is too. Furthermore, they demonstrate that the physical and social worlds are not two worlds, that pleasure-driving in the Adirondacks really is related to starving babies in Bangladesh. (Petroleum can be made into gasoline or fertilizer, take your pick.)

Chapter 4 describes the sophistication of the authors’ world model, and makes a compelling case for computer-aided decision-making. (We really can’t keep track of all that data with just our heads: brains are far better at processing data than storing it.)

Chapter 5 presents a tough case for quick action: early aid can bring the underdeveloped world to parity at 1/5 the cost of “delayed aid,” and Robert Heilbroner’s nightmares will be fulfilled. (See his Inquiry Into the Human Prospect.)

Chapter 6 is a similar plea for haste, this time in implementing population policies.

Chapters 7 and 8 demonstrate the book’s major theme. In political strategy and in pricing policies the aggregate welfare of the world will be maximized through cooperation, not confrontation. When interdependency is recognized, an optimal petroleum price, for example, will provide development capital for the exporting countries and stimulate the early discovery and adoption of alternate blackmail and terrorizing imposed to discourage it, and Robert Heilbroner’s nightmares will be fulfilled. (See his Inquiry Into the Human Prospect.)
energy sources in the importing countries. "Squeezing" by one country (too high a price) or by another (too low) results in what systems analysts call "suboptimization."

Chapter 9, "The Only Feasible Solution," is another optimization example. Industrial development in South Asia must keep pace with agricultural development in order that still-necessary food imports can be paid for with manufactured exports.

And Chapter 10 is a warning about the deadly grapefruit: a lump of plutonium that size is sufficient to poison the world, and we should work accordingly toward a reliance on solar, not fission, energy. That's hard to fault, though it does seem to me the authors have slighted nuclear fusion: for that we have a fuel source that will last ten billion years, and the by-product is helium. Solar energy has the enormous appeal of ubiquity—no power company can monopolize it—but fusion energy will outlast it by six billion years. For those obsessed with the long run, that might be important.

Chapter 11 is the Epilogue, and here the authors make their last plea for a systems view—one whole world of people, vegetation, animal life, and the physical environment—and for cooperation, not conflict. So be it.

Early in their book, the authors speak of one gap between man and nature and another between the developed North of the world and the underdeveloped South. The first gap is no sooner described than it is subsequently ignored. I find that tolerable, if not preferable, since I think that gap is largely mythical anyhow. Most of Mankind at the Turning Point is concerned with narrowing the second gap, the development gap. I find this not only tolerable but hugely appealing, as it keeps the problems of human dignity and the human condition squarely before us.

Mihaio Mesarovic and Eduard Pestel have used the computer as a tool, not a toy. They have given us a thoughtful book, a contemporary analytical methodology, a renewed challenge, and answers that we know intuitively to be sound.

Systems Analysis in Public Policy: A Critique by Ida R. Hoos (University of California Press; 259 pp.; $10.00)

John R. Cunningham

The growing dominance of the Office of Management and Budget (OMB) in shaping federal policy is one of recent history's more remarkable and least understood developments. The old Bureau of the Budget was transmogrified by President Johnson, with increased power, additional staff, and an altered mandate. The Nixon Administration used it both as a boot camp for bureaucratic gauleiters, who were then assigned to oversee other agencies in the bureaucracy, and as a major control mechanism for blunting Congressional intent and departmental influence on federal policy. There is no indication that the present Administration intends to alter the direction of these developments. Although there is increased media comment regarding the growth of Presidential power, it is worthwhile to examine one of the institutional mechanisms that has been spawned by, and in turn accelerates, this executive imperialism.

The name change from Bureau of the Budget to Office of Management and Budget, although little remarked at the time, seems to have signaled a significant shift in attitudes and marked the ascendency of a new managerial and technocratic style among those who determine policy. The budget is no longer conceived simply as an adjunct to policy decisions. The budgetary process, in the new mode, is seen as an instrument for managing programs. It thereby becomes a powerful means for establishing policy without the necessity of going through traditional political channels. The effectiveness of this process is evident in the impoundment procedure developed to frustrate Congressional will and in the subtle and more insidious influence that OMB has in scuttling or redirecting established programs within departments. A further step is taken when the task of reducing duplication in government surveys, for instance, is seen as authority to question the content of social science research. This recently occurred in a social psychology project funded by HEW but stalled by OMB queries about the purpose of certain questions on an interview form.

OMB's appearance at the apex of the federal decision-making pyramid has coincided with the widespread adoption in academic, foundation, and corporate circles of an array of analytic techniques broadly referred to as systems research. (The terms "systems approach," "systems analysis," "systems engineering," and "systems research" must be considered synonymous in discussions of this sort, since they are used interchangeably and with abandon by adherents.) In government this set of techniques is usually found under the rubric "Program, Planning, and Budgeting Systems" (PPBS). "Management by Objectives" is another manifestation of this general movement.

The new dominance of "systems analysis" in viewing society's problems seems to have provided both a theoretical base and academic sanctification for the emergence of the OMB and for the widespread acceptance of its style and method throughout the federal bureaucracy and beyond. This is not to say that a direct causal relationship exists, but rather that the relationship, though noncausal, is significant of what C.J. Jung used to call "synchronistic." In questioning the validity of systems analysis I do not mean to depreciate the need for concentrated and systematic thought concerning the problems facing the society nor to disparage the effort to develop rational procedures for conducting the public business. Nor do I wish to suggest a lackadaisical approach to