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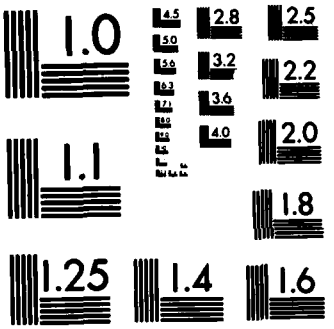

# MANAGEMENT WITHOUT A "BOTTOM LINE"

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## I. MARKET AND NON MARKET ENTERPRISES

Enterprises and organizations can be categorized in a number of ways: public versus private, and government versus non-government; profit versus nonprofit; regulated versus unregulated; and market versus non-market. Each set of categories has some merit and utility, highlighting some distinguishing characteristics that affect, or allegedly affect, behavior of the enterprise.

The various categories often cut across one another's purview. For example, public enterprises may be profit makers, such as the Export-Import Bank and the World Bank, and private corporations may be non-profit organizations, such as The Rand Corporation.

The distinction between market enterprises and non-market enterprises has seemed to me of particular interest and importance, for reasons that I have dealt with at length elsewhere.** Non-market enterprises are those whose principal revenues come from taxes, donations, contributions, endowments, or sources other than the proceeds derived by charging prices for products or services sold

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**For a more extensive treatment, on which this discussion is based, see my "A Theory of Non-Market Failure: Framework for Implementation Analysis," The Journal of Law and Economics, April 1979, and the further discussion in "'Non-Market Failure' Revisited: The Anatomy and Physiology of Government Deficiencies," The Rand Corporation, March 1981.

to buyers who are able to buy or not to buy as they wish. Market enterprises are those whose principal revenue comes from these latter sources. In this terminology, "public" enterprise is mixed in character: public education, the police, the National Science Foundation, and the Postal Service are non-market enterprises.* COMSAT, the Los Angeles Department of Water and Power, the railroads in most European countries (where they are operated by government) are market enterprises. "Public" or government enterprises that operate in functioning markets are market enterprises if the bulk of their revenues is earned from prices charged to consumers for transactions occurring in these markets. Conversely, private enterprises whose revenues come principally from non-price sources, e.g., endowment earnings, government subsidies or appropriations, are non-market enterprises.

One of the common, as well as crucial, characteristics of non-market enterprises (NMEs) is that they operate without the types of valuable information determining the "bottom line" of market enterprises. The profit-and-loss bottom line provides for the market enterprise (ME) chief executives, shareholders and the general public a quintessential indicator of how well the ME is performing. This point remains valid, notwithstanding that: (1) the P&L indicator may be misleading because of distortions in it introduced by inflation, by inappropriate depreciation allowances, or by special

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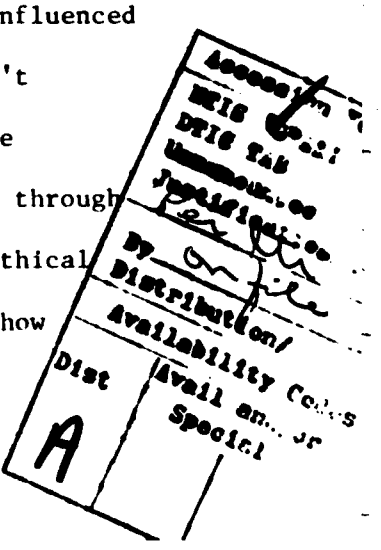
*The Postal Service is perhaps in transition because its services are increasingly subject to direct competition by market organizations, and Congress is showing less willingness to finance its operating deficit.

accounting practices used in evaluating inventories; and (2) large MEs are increasingly concerned with broader social and public aspects of their performance than those which are directly reflected in the P&L. For example, top management of large MEs is acutely concerned with the present status, as well as prospects, of regulation in their industries, the prospective as well as current tax burdens they will be facing, the state of technology and its prospects for major change in their industries, and with prevailing public attitudes toward their firms.

However, even these "broader" concerns relate, in a qualitative way, to P&L statements that are downstream. In effect, most of these larger concerns involve an implicit tradeoff between P&L today and P&L tomorrow.

In the case of public MEs, the types of "broader" concerns that are not directly reflected in today's P&L are likely to be given particular weight by top management, because these concerns reflect the major public purposes that ostensibly provide the rationale for public ownership and operation, in the first instance. Stated another way, public MEs are likely to give greater weight to factors affecting future P&Ls rather than today's P&L, compared with the weight accorded them by private MEs, i.e., public MEs will tend to have a lower time discount than do private MEs. Also, public MEs are likely to be more influenced by considerations affecting dimensions of performance that don't enter the P&L at all. For example, public MEs are likely to be concerned with how to distribute profits, or how to limit them through suitable pricing policies, in accord with some principles of ethical and political equity rather than shareholder equity, and with how




to realize increasing returns from larger-scale operations while not necessarily charging profit-maximizing prices.

Nevertheless, there is a fundamental reason why the distinction between market enterprise (whether public or private) and non-market enterprise is highly relevant and important for understanding the differences in governance (or management) in these two types of organizations. In market enterprises, the behavior of consumers provides invaluable information to management which is not available in non-market enterprises. Consumers make millions of decisions and choices: whether to spend or save; what to buy and how much; whether to buy product X or Y, and, within each product line, whether to buy brand $X_1$ or $X_2$. Moreover, these signals are transmitted frequently and regularly, so that comparisons over time can be made. In turn, this information relates closely to sales and, by reflecting volume, relates also to costs. It affects today's market shares and forecasts of tomorrow's, today's P&L "bottom line," as well as tomorrow's. It helps management to make key decisions concerning the enterprise's employment levels and policies, salaries and promotions, internal budget allocations, investment and R&D planning. The point is not that P&L directly affects all of these decisions, but rather that it, and the other aspects of P&L that result from consumer behavior, provide a rich and invaluable source of information to help guide these decisions. A market enterprise that pays insufficient attention to this information thereby increases the risk that it will atrophy and be displaced. The process takes time, but it is relentless. The experience of the U.S. automobile and steel industries is an unhappy reminder of this fundamental process.

Non-market enterprises lack the information, signals, prods, and guides that are provided by the "bottom line." Of course, they know their revenues and costs. But these tell them little about their organizations' performance because the objectives of NMEs--their raisons d'etre--are not related to their revenues. Instead, their objectives typically relate to broad social and public concerns such as equity, aesthetics, the advancement of knowledge, science, technology, promotion of national and international communication and understanding, improving relations between government and business, contributing to world peace, and so on.

How then do NMEs conduct their operations in the absence of the usual type of bottom-line information available to MEs? What internal norms or criteria or modes of operation do they rely on in making certain types of operational decisions that all organizations--NME as well as ME--must inevitably make: for example, allocating budgets, evaluating accomplishments and shortcomings, promoting, hiring, and terminating personnel?

## II. COMMENTS ON METHOD

The remainder of this paper will report briefly on a preliminary and limited effort to address these questions. The aim of this research has been to understand how three non-market enterprises in the same field make certain types of decisions. The field is grant-making, and the three NMEs include one government organization (the National Science Foundation), and two non-government organizations (the Ford Foundation and the Sloan Foundation). We are interested in whether and what specific internal norms ("internalities") are used by these organizations in making three types of managerial decisions: those relating, respectively, to internal budget allocation, project evaluation, and personnel evaluation. Furthermore, we are interested in whether there are discernible differences between government and non-government NMEs in the way these decisions are made.

The work I will summarize has been principally conducted by a graduate fellow at The Rand Graduate Institute, Charles Eby, working under my supervision.* In conducting this research, we jointly designed a questionnaire (Attachment A) that was applied in a series of interviews held with the chief executive officers of the National Science Foundation and the Sloan Foundation, and with three or four other senior executives at those two organizations as well as at the Ford Foundation. A copy of the questionnaire is attached to this paper. Before presenting a brief account of some of the points

*A small grant to support this research was made in 1980 to The Rand Graduate Institute by Yale University's Program on Non-Profit Organizations, directed by Professor John G. Simon.

and insights we have learned in this limited study, I will make a few observations on the study's methodology and limitations.*

First, the case study method we have used, while valuable for providing insights, does not provide firm and reliable data for testing hypotheses in any rigorous, statistical sense. Obviously, this limitation is even sharper when the number of cases under investigation is confined to the three foundations mentioned above.** In sum, the data that can be derived from case studies are inherently "soft," often allowing ample room for subjective interpretations that may vary for different investigators.

Second, the grant-making field under examination is itself so special that it is quite legitimate to question whether <u>any</u> general conclusion can be drawn from this field with respect to the broad subject of "management without a bottom line" for non-market enterprises in fields other than grant-making.

Third, the views that we elicited in the course of our interviews were at the top executive levels, i.e., CEOs or executive vice presidents, and these views may or may not reflect the reality of management practices at other echelons within their organizations. Nevertheless, I should add that we were quite impressed by the candor, openness and forthcoming responses of our interlocutors, and by their willingness to provide documentation in support of their observations.***

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*For a fuller account, see Charles Eby, "Performance Norms in Non-Market Organizations: An Exploratory Survey," N-1830, The Rand Corporation, April 1982.

**The further dissertation work in which Eby is currently engaged will expand the number of cases by five or six.

***The Ford Foundation has been drastically reorganized since the interviews we conducted there in the spring of 1981, although there was quite clearly no cause-effect relationship involved in this sequence.

## III. PRELIMINARY FINDINGS

The three grant-making foundations differ in important respects from one another. The National Science Foundation was established in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes." Its director is appointed by the President and confirmed by the Senate, as are the twenty-four part-time members of the policy-making National Science Board. NSF has a staff of about 640 and an annual budget of just under a billion dollars.

The broad purpose of the Ford Foundation is to contribute "to world peace and to the establishment of a world order of law and justice, ....to the basic principles of freedom and democracy, ... to the economic well-being of people everywhere, ...to conserve and increase knowledge and enrich our culture."* Ford is the largest private foundation in the country with assets of over two billion dollars, annual expenditures of about $160 million, and a staff of nearly 200 at the time of our visit in March 1981, although this number has been reduced since then as a result of the Foundation's recent reorganization.

The Sloan Foundation aims to "permanently improve the human condition...[through] the steady growth of scientific and technical knowledge, and of skills in managing the economy and the public and private institutions of our society."** Sloan has assets of about a

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*From the Gaither Report of 1950, as cited in Richard Magat, The Ford Foundation, 1979, p. 18.

**Annual Report of the Sloan Foundation, 1979, p. 5.

quarter of a billion dollars, and its annual grant expenditures of about $14 million are managed by a staff of eleven professionals.

How do these different grant-making enterprises manage their affairs and make their key decisions with respect to budgets, project evaluations, and personnel in the absense of a profit-and-loss bottom-line? Four generalizations seem to be warranted from our limited investigation.

1. Process dominates product

The purposes that these non-market enterprises seek to advance are so broad, e.g., furthering the progress of science, advancing national health, prosperity and welfare, furthering the growth of scientific and technical knowledge, that they cannot be realistically reflected in explicit decisionmaking criteria. In the absence of such criteria, organizational processes play the predominant role in decisionmaking. Decisions are developed by a process that operates from the top down, and from the bottom up. For example, the NSF budget starts with a budget level established by OMB, while the Foundation's programmatic directorates develop their own component budgets, which are subsequently reviewed and adjudicated through the director's office and finally confirmed by the National Science Board. In the organizational processes for evaluating projects* and personnel, evidence in the form of tangible products plays an infrequent role. Instead, project evaluation ("assessment") is typically a peer review process often involving outside panels of

*In the grant-making field, ex ante evaluation is referred to as "assessment," while "evaluation" occurs after the project is completed.

peer reviewers, while personnel evaluation occurs through a hierarchical process in which social and communication skills are often valued more highly than tangible products.

Of course, the process of decisionmaking in market enterprises is also of central importance in budget and personnel management. However, in the case of MEs this process typically includes, and is couched in terms of, tangible products or their proxies or surrogates, e.g., sales, profit margins, revenues, etc.

2. Lacking informational feedback from consumer behavior, the management of non-market enterprises in the grant-making field looks for guidance concerning priorities and activities to the outside "marketplace" of ideas and social concerns.

In establishing, interpreting and adapting the broad purposes that constitute their formal objectives, NMEs often shift the specific fields in which they are engaged in accordance with the vicissitudes of intellectual fashions and social concerns. One example is NSF's current concern to improve U.S. industrial productivity and competitive positioning in world markets by stimulating scientific and technological progress. The Ford Foundation's program of grants to encourage neighborhood control of primary schools in the 1960s, and to promote foreign economic development through subsidized technical assistance also in the 1960s and currently, are other examples. Ford's programmatic effort in the environmental field in the 1970s was another example of response to intellectual and social ferment in the social and intellectual "marketplace."

3. Management of NMEs is affected by their size and their status as government or private enterprises.

As the two largest grant-making organizations. NSF and Ford share certain characteristics in management style. Charles Eby describes the role of the CEO at both NSF and Ford as "that of a monarch--distant from the ordinary staff and attended by an air of formality and protocol."* By contrast, decisionmaking at the smaller Sloan Foundation is collegial and shared among the very small number of professional staff members. One consequence of this difference is that changes in programmatic emphasis tend to be associated with changes in top management at the two large foundations, NSF and Ford, while programmatic emphasis tends to be more stable in the face of changes in top management at Sloan.

As a government NME, the National Science Foundation is inevitably more subject to political influence than are the two private foundations. This influence is exercised both within the executive branch--by OMB and the White House--and by the Congress through the cognizant Congressional authorizing and appropriation committees. NSF's recent decision to emphasize engineering and applied science as contributory to U.S. industrial productivity, and to reduce emphasis on the social sciences, is an example of such political influence. The existence and importance of such political influence is not pejorative. It is simply a reflection of the broad purpose assigned to its activities by NSF's authorizing legislation,

*See Eby, pp. 10ff.

and the consequent role of the Congress and the Executive Branch in seeking to interpret and elaborate this broad social charter.

4. Difficulty in managing NMEs is inherent.

When allowance is made for differences in size and in the government versus non-government status of the grant-making organization, the management practices of NMEs in the grant-making field seem generally to be more similar than different. Management without a "bottom line" is a difficult and demanding task because of the basic elusiveness of the broad social objectives that such management seeks. Effective management of organizations that lack a bottom line is manifestly more difficult precisely because of this lack. Consequently, decisions that are sensible, let alone "optimal," with respect to budgets, project activities, and personnel selection and advancement, are harder to arrive at in non-market enterprises without a bottom line than in market enterprises with it.

There is a subtle irony to this situation: while the absence of a "bottom line" makes good management more difficult in non-market enterprises, this absence also makes it more difficult to demonstrate the existence of bad management in such organizations.

ATTACHMENT A

(Questionnaire)

INTERNAL PERFORMANCE NORMS IN NON-MARKET ORGANIZATIONS

I. Organizational Goals

1. Is there a formal statement of organizational goals?

   1.1 What is the source, and how did it arise?

2. Have formal attempts been made to derive internal norms and standards from the organization's basic goals?

   2.1 Has there been more than one attempt?

   2.2 If so, are they regular or ad hoc?

3. What parts of the organization were involved in these attempts?

4. Are these efforts viewed as successful? Why?

II. Budget Allocation

1. What specific (or general) criteria (norms, standards, metrics) are used in allocating the foundation's budget among major programs, e.g., basic or applied science, social sciences, international or domestic, etc.

   1.1 To what extent is continuity determinative (e.g., this year's budget allocation depends mainly on the budget share received last year)?

   1.2 How are changes in each major program's allocation decided upon (e.g., as a fixed proportion of the change in the foundation's total budget, as a result of specific interventions by the foundation's governing board, etc.)?

   1.3 Does the foundation try to follow its own precedents in making allocative decisions: rigorously, frequently, or rarely?

   1.4 To what extent, and in what ways, do general political considerations affect allocative choices? Do these considerations operate more directly and significantly in NSF's decisionmaking than in that of the large private foundations? Specifically, how does the cognizant Congressional committee affect NSF's allocative choices among programs, and what criteria (or processes) are reflected in this Congressional role?

1.5 To what extent, in all of the above but especially in (1) above, is it more accurate to think of a process rather than a set of criteria as determining allocative decisions? Specifically, does a process of subjective and qualitative judgments, without explicit criteria, affect allocative decisions sometimes, often, or usually?

1.6 To what extent are the answers to the above questions, especially (1), different now from the answers that would have applied five or ten years ago?

[N.B. Examples and data on allocation decisions relating to specific programs and patterns over time will be particularly useful. If data or reports exist that show, for example, budget requests by particular programs, as well as final budget allocations, we would like to see them. Explanations of the differences between initial requests and final allocations, e.g., in foundation records, or in minutes of board meetings, would also help.]

III. Project/Grant Evaluation

1. What explicit or implicit criteria (norms, standards, metrics) are used by the foundation in its project/grant evaluations?

1.1 In deciding which project options or grant applications look promising (i.e., ex ante evaluation)?

1.2 In arriving at judgments about which projects/grants were highly successful, moderately successful, or disasters (i.e., ex post evaluation)?

1.2.1 Are the criteria used to judge failures the same as those used to judge successes (i.e., are the "scores" of failures simply the negative values of the same metrics used to evaluate successes)?

1.2.1.1 If not, why not?

1.3 If the criteria referred to in (1.1) and (1.2) are different, why is this so?

1.4 To what extent are the answers to (1.1) and (1.2) different now from what they would have been five or ten years ago?

1.5 How is uncertainty (e.g., relating to proposed grants, grant applications, and institutions) dealt with? For example, are some grant selections deliberately made because they are especially "risky"? What sorts of risks are accepted or sought, and what sorts are eschewed, e.g., with respect to subjects, people, or sponsoring institutions?

[N.B. Again, specific examples of "successes" and "failures" would be helpful.]

IV. Personnel Actions

1. What criteria (norms, standards, metrics) are used by the foundation in its regular staff decisions?

1.1 In hiring personnel?

1.2 In advancing/promoting personnel?

1.3 In providing regular and exceptional salary increases?

1.4 In providing regular and exceptional non-monetary perquisites?

1.5 In arriving at judgments as to who really are the top program officers, and who are the poor performers?

1.6 In terminating personnel?

1.7 How different would the answers have been five or ten years ago to the preceding questions concerning personnel actions?

[N.B. Specific examples (minus names) would be helpful.]

V. Miscellaneous

1. To what extent, and in what ways, does the foundation's CEO affect the criteria and norms referred to in the preceding questions?

1.1 Is the CEO's influence persistent or occasional, e.g., manifest when a new CEO arrives, but seldom thereafter, or regularly and continuously?

2. To what extent, and in what ways, does the foundation's governing board affect the criteria and norms referred to in the preceding questions?

   2.1 Is the board's influence exercised collectively, or instead through key individual members who are especially forceful?

   2.2 Is the board's influence in these matters persistent or occasional?

3. Has decisionmaking in the three classes of operating decisions referred to above become more or less decentralized over time?

   3.1 Why?

4. What salient difference (s) is found in the criteria (norms, standards, metrics) applied by other non-market organizations in the grant-making field?

   4.1 In government foundations vs. non-government foundations?

5. What salient difference (s) is found in the criteria applied by market organizations in making the three classes of operating decisions referred to above?

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