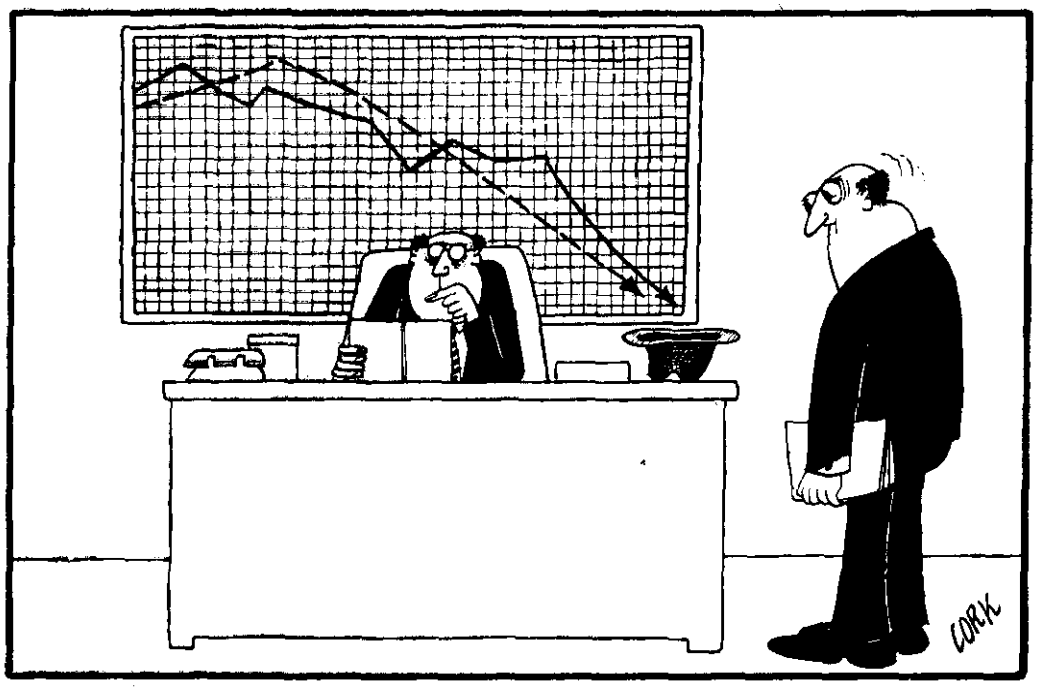
The basic elements of crisis management differ from the basic elements of normal sound management practice, not in kind, but in intensity. Troubleshooting techniques alone accomplish nothing. In the final analysis, leadership—the determination to implement and complete a realistic plan—makes it happen.



Management in Crisis

JERRY E. GOLDRESS
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There is no substitute for effective management in any corporation under any circumstances; but for a corporation in financial crisis, leadership is paramount. All energies must be directed toward one goal: the survival of the enterprise. The key to company survival is positive cash flow, and it is to this end that all the talents and resources available to the organization must be channeled.

Analyzing the problem areas

The first step in any program of correction is to determine the problem areas. In a financial crisis, the problems can be quite complex and defiant. While each situation is unique, the one common thread that runs through all

companies in crisis is a lack of liquidity. The causes of a particular liquidity problem vary from operating losses, which erode the capital basis, to "locked in" assets, such as excessive plant and equipment, accounts receivable, or inventories. Often there is a combination of interrelated factors at work.

Whatever the liquidity crisis, the company is usually forced to hoard and use money that is properly owed to creditors. This normally takes the form of ignoring discounts and extending trade payables from the normal 30 days to 60 or 90 days and beyond. Many strapped companies also turn to collateral financing of their receivables and inventory as another source of cash. In the long run, of course, the only solution to the liquidity problem is to restructure the company into a position of positive cash flow. This takes time, however, and withholding payments to creditors meanwhile may be the only way to conserve cash and keep the company operating.

When dealing with creditors, the most important single factor is credibility. Being honest with them pays big dividends in the long run. The creditor who has been misled or lied to has little faith in anything management has to say; and as the word gets around, this can create major difficulties in future negotiations.

Small creditors—those owed $200 or less—should be paid in full if at all possible. This is pragmatic, not just a matter of being kind to the "little guy." During the general harassment that results from stretching out payments, small vendors can take a disproportionately large amount of management's time. Large vendors should be treated individually, by frankly discussing the problems the company is facing. Most vendors are cooperative if they are presented with what appears to be a workable plan and if they know that the company is honest and is determined to solve its problems.

Looking behind the balance sheet

In doing a preliminary analysis of the company's situation, it is useful to compare the company's balance sheet with that of other companies in the same industry. A word of caution, however: Balance sheet figures should never be accepted at face value simply because they are the official figures on the books. One should always look behind the balance sheet to determine the reasonableness of the numbers. Take inventories as an example—inventories that are turning at the rate of twice a year when the industry standard is six should raise serious questions about their marketability.

Industry figures may be obtained from several sources. Dun & Bradstreet publishes figures annually in a report titled *Key Business Ratios.* Financial institutions have access to Robert Morris Associates' *Annual Statement Studies,* which have the added advantage of segregating the data into separate groupings according to company asset size within each industry. Additional data can be found by researching trade association publications, and commercial business and industrial magazines occasionally publish—or have available—helpful survey results.

Figure 1
Aerospace Machine Shop: Balance Sheet—1973
(000 Omitted)

Current assets	
Current:	
Cash	26
Inventory	151
Accounts receivable	275
Total current*	452
Fixed assets	
Property plant and equipment	222
Other assets	6
Total assets	680
Liabilities	
Current	230
Long term	173
Total liabilities	403
Net worth	277
Total liabilities and net worth	680
Profit & loss 1973	
Sales	1250
Profit (loss)	(45)

Figure 1 illustrates the 1973 balance sheet of the Aerospace Machine Shop (the disguised name of an actual company that fell on evil days, but recovered). While Aerospace was not actually insolvent, it was in serious trouble and would have ended up in bankruptcy court had not a corrective action operation been inaugurated in time.

Figure 2 compares various ratios, using data from Figure 1 and some industry figures. It can be seen quickly that several key ratios appear to be out of line. Notice that, in addition to the obvious operating loss, the company's collection period and its ratio of long-term debt to working capital are abnormally high. (To calculate the collection period, divide total sales by 365 to arrive at sales per day; then divide total accounts receivable by sales per day.)

Another useful analytical tool is *direct costing,* in which the elements of cost are segregated into three groups.

- The first are the variable, or direct, costs, which vary in direct proportion to volume. Typically, these costs include direct labor and its associated *fringe benefits, direct materials, and other direct expenses such as freight and* commissions.
- The second group includes assignable period expenses, which do not

Figure 2
Aerospace Machine Shop: Financial Ratios

	Aerospace Machine Shop	*Industry Average*
1. Current assets to current liabilities	1.97	2.01
2. Inventory to net working capital	.68	.75
3. Sales to inventory	8.28	8.00
4. Other assets to net worth	.02	.03
5. Sales to net worth	4.51	4.25
6. Profit (loss) to sales	(3.60%)	7.00%
7. Fixed assets to net worth	.80	.80
8. *Collection period*	*80 days*	63 days
9. Long term debt to working capital	.80	.63

vary with volume, but which would be eliminated if the product line were dropped or sold.

- The third group consists of nonassignable period expenses. These are the relatively fixed costs that would normally be incurred even if nothing were produced or sold.

Total fixed cost, then, is the sum of the assignable plus the nonassignable period expenses.

The use of direct costing not only helps segment the business into logical elements for analysis but also allows the analyst to mathematically derive a profit equation that can be utilized to test various alternatives. Where multiple product lines exist, profit can be calculated at either the product-line contribution level or at the level of the company as a whole. The formula is profit equals the ratio of profit-to-volume times the amount of profitable sales, or

$$P = PV \text{ (sales} - \text{break-even sales)}.$$

In turn, break-even sales equals fixed cost divided by the ratio of profit to volume, or

$$\text{BE sales} = \frac{\text{Fixed cost}}{PV}$$

Based on the information shown in Figure 3, Aerospace's break-even point was calculated as follows:

$$\text{BE sales} = \frac{\text{Fixed Cost}}{PV}$$

$$= \frac{58 + 570}{46.6\%}$$

$$= 1{,}347$$

Figure 3
Aerospace Machine Shop: Direct Costs
(000 omitted)

	Mature Government	*New Government*	*Commercial*	*Total*
Net sales	200	650	400	1250
Direct costs				
Material	25	95	65	185
Direct labor	50	165	125	340
Various O/H	22	50	50	122
Selling	—	—	20	20
Total direct costs	97	310	260	667
Net marginal contribution	103	340	140	583
P/V Ratio	51.5%	52.3%	35.0%	46.6%
Assignable period expense				
Manufacturing	20	—	30	50
Marketing	4	4		
Total assignable	24	4	30	58
Product line contribution	79	332	110	525
% Contribution	39.5	51.0	27.5	42.0
Nonassignable period expense				
Manufacturing				339
G & A & Sell				231
TOTAL				570
Profit				(45)

But total actual sales were only $1,250,000. Continuing the calculation then:

$$\begin{aligned} \text{Profit} &= PV\ (\text{Sales} - \text{BE sales}) \\ &= 46.6\%\ (1{,}250 - 1347) \\ &= (45) \end{aligned}$$

The company, losing $45,000 a year on declining volume, was clearly on the doorstep of disaster. But the direct costing approach also provided important insights into the *locus* of the company's problems. Figure 3 shows the contribution method of direct costing, segregating the business into three product lines: mature government business, new government business, and commercial business.

Since the company was traditionally government-oriented, it was not surprising that its profit margins in the commercial sector were low. Even so, the slim product-line contribution of the mature government business came as

". . . An objective evaluation of the talents available within the organization is intrinsic to structuring a turnaround. This evaluation starts at the top and then proceeds down through the organization into each of the key areas."

a shock. This apparently resulted from the company's having been the sole procurement on those contracts, with prices determined on the basis of negotiations after detailed cost audits had been performed. The new government business was based more on competitive bidding, and the margins and product-line contribution were healthier.

Structuring the turnaround

So far, our analysis of Aerospace Machine has isolated the following problems for further review:

- A 3.6% operating loss.
- An excessively long collection period.
- A declining sales base.
- High long-term debt.
- Excess machinery and equipment.
- Low margins on mature government and commercial work.

After completion of the preliminary analysis of the problem areas, the next step is to take positive action to return the company to solvency, initially, and then to profitability. (This assumes, of course, that it is a viable entity; for some companies, liquidation is the only realistic way to resolve the matter).

It is no exaggeration to state that people are the single most important ingredient in determining potential success. Accordingly, an objective evaluation of the talents available within the organization is intrinsic to structuring a turnaround. This evaluation starts at the top and then proceeds down through the organization into each of the key areas.

A review of the Aerospace Machine Shop's organization revealed a serious deficiency that cast light on the disappointing cost/price relationship within the mature government business. The controller, who was responsible not only for maintaining cost data but also for negotiating all contracts, had had no real previous experience with government contracts. In addition, he was an introverted, rather passive individual who disliked the hard negotiations inherent in the job. It was therefore decided to replace him with a person

TABLE 4
Cash-Flow Plan for One Month
(000 omitted)

Cash at start of month	26
Cash inflows	
Accounts receivable collections	90
Royalty payment	5
Proceeds of sale of surplus fixed assets	30
Total cash inflows	125
Cash outflows	
Salaries and wages (net)	24
Raw material purchases	19
Supplies	3
Miscellaneous expenses	8
Income tax payment (refund)	(12)
Payroll taxes	7
Total cash outflows	49
Cash at end of month	102

with a strong, proven track record in government contracting. As it turned out, other personnel shortcomings at Aerospace were minor and need not concern us here.

The next step was to take a hard look at the markets being served by the business. The nature of Aerospace's government business requires the production of expensive, sophisticated control systems, which generally are not compatible with competing for commercial work. This observation led to a decision that, in the long run, commercial work would be deemphasized by gradually raising prices. This decision was taken partly in anticipation of an upturn in the aerospace market, which, if served at proper price levels, would result in profitable operations.

Analysis of the long collection period revealed a lack of follow-up rather than any deterioration in the credit-worthiness of the company's customers. To conserve cash, the large companies in the industry had begun to stretch out their payables. This situation was largely corrected by more aggressive follow-up, starting as soon as the invoices became due. Although this did not bring all accounts current, as we would have liked, it did result in a much improved collection period—better than the industry average—and thereby improved cash flow.

The need for additional cash was also helped by sale of the excess equipment. Selling off the surplus equipment and rearranging the main facility also permitted consolidation of operations into a single plant, which resulted in important additional savings.

Table 5
Same Cash-Flow Plan by the Week
(000 omitted)

	Week 1	*Week 2*	*Week 3*	*Week 4*
Cash at start of week	26	12	(3)	32
Cash inflows				
Accounts receivable collections	4	7	45	34
Royalty payment	—	—	—	5
Proceeds of sale of surplus fixed assets	—	—	—	30
Total cash inflows	4	7	45	69
Cash outflows				
Salaries and wages (net)	6	6	6	6
Raw material purchases	5	6	4	4
Supplies	1	1	—	1
Miscellaneous expenses	2	2	—	—
Rent	4	—	—	—
Income tax (refund)	—	7	—	(12)
Payroll taxes	—	7	—	—
Total cash outflows	18	22	10	(1)
Cash at end of week	12	(3)	32	102

The long-term debt problem was a direct result of past operating losses, and while debt was higher than the industry average, we did not consider it to be a major obstacle to effecting the turnaround.

Planning cash flow

As stated earlier, the key to a successful turnaround is positive cash flow. Unless this can be established, the enterprise is doomed. The analysis of Aerospace Machine was merely the first step in the process, revealing how the company got *into* trouble. But only action that resulted in a positive cash flow would get it *out* of trouble. Moreover, once operating expenses were reduced and the cash flow necessary for survival was established, it was equally vital that these flows be monitored on a continuing basis.

In most companies facing a liquidity crisis, the normal monthly cash flow is insufficient, of course. As a result, every feasible source of additional cash must be explored, and all cash that realistically can be anticipated must be incorporated into a detailed cash flow plan. Figure 4 illustrates a monthly cash-flow plan drawn up for Aerospace Machine, and Figure 5 shows the same cash-flow plan by weeks.

As in all cash planning, the timing of these flows is critical. It is the responsibility of the company's leadership to control and monitor these flows, to take whatever action is necessary to eliminate deficit spending, and to realize the planned cash flows on schedule. Specifically how this is done in any particular circumstance will depend on the situation management faces and the resources available to cope with it. Among the most important of these resources, of course, are management's own ability, resolve, and resourcefulness.

The basic elements of crisis management differ from the basic elements of normal, sound management practice, not in kind, but in intensity. The "troubleshooting" analytical techniques, by themselves, accomplish nothing. It is leadership—the determination to implement a realistic plan and press it to completion—that in the final analysis makes it happen.

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Recent Management Publications

All inquiries about these publications should be addressed directly to the publishers.

Finance

Corporate Finance Law: A Guide for the Executive
By Bruce Wasserstein
New York: McGraw-Hill, 1978, 296 pages, $17.50

Clarifies reason behind legal concepts that affect business transactions. Explores four major areas: starting a business; public financings; mergers, acquisitions, and tender offers; and bankruptcy. Topics range from basic securities to legal considerations of corporate, antitrust, and tax matters.

Cycles: What They Are, What They Mean, How to Profit by Them
By Dick A. Stoken
New York: McGraw-Hill, 1978, 184 pages, $17.50

Provides original formulas to help investor decide when to buy and when to sell. Explains how to predict next depression and how it is likely to differ from that of the 1930s. Predicts which stocks will appreciate most during each stage of stock market cycle.

Prospects for Capital Formation and Capital Markets: Financial Requirements over the Next Decade
By Arnold W. Sametz
Lexington, MA: D.C. Heath, 1978, 145 pages, $13.95

Presents economy-wide forecast in Traditional Federal Reserve System format. Summarizes forecasts, highlights underlying assumptions, and discusses important issues in shaping financial environment.

Venture Capital Investing: Letter Stock Funds Versus Venture Groups
By Lucien Ruby
Madisonville, KY: Lucien Ruby, 1977, 78 pages, $17.50

Traces rise of letter stock investing, examining six major public funds in detail. Argues that success of venture capital organization is determined by how well investor deals with problems of portfolio companies. Outlines cause of business failure and examines research suggesting factors leading to success in high-technology companies.

Forecasting

The Knowable Future: A Psychology of Forecasting and Prophecy
By David Loye
New York: John Wiley & Sons, 1978, 202 pages, $12.95

Examines science underlying future predictions as formal venture and as informal mass activity. Advances new theory of how future is shaped by and predicted according to "matrix impact" of liberalism, conservatism, and five other major factors of ideology. Provides guide to personal prediction making, with examples keyed to business management.

Long-Range Forecasting: From Crystal Ball to Computer
By J. Scott Armstrong
New York: John Wiley & Sons, 1978, 612 pages, $24.95

Covers all aspects of long-range forecasting methods relevant to social, behavioral, and management sciences. Includes original research on air travel and international market for photographic goods.

International

European Research in International Business
Edited by Michel Ghertman and James Leontiades
Amsterdam and New York: North-Holland, 1978, 368 pages, $41.50

Provides cross section of international business research done by European scholars. Addresses broad range of key issues including theory of international business and multinational corporations, international finance and control, international marketing and international managing of human resources.

Labor Relations

Dealing with Employment Discrimination
By Richard Peres
New York: McGraw-Hill, 1978, 330 pages, $15.50

Offers effective methods in prevention of employment disparity practices and lawsuits. Author draws from experience with legal procedures to examine impact of discrimination law on employers. Topics range from understanding unlawful discrimination to solving employee grievances.

The Economics of Industrial Health: History, Theory, and Practice
By Joseph F. Follmann, Jr.
New York: AMACOM, 1978, 482 pages, $27.50

Traces growing concern for health conditions that relate to work, especially in industrial context. Shows how concept of industrial health moved beyond strict occupational definitions and became pervasive social and business concern in twentieth century.

Managerial Economics

Regulating Business: The Search for an Optimum
By Chris Argyris et al.
San Francisco: Institute for Contemporary Studies, 1978, 260 pages, $5.95

Representatives from industry, government, academia discuss gulf between rhetoric of deregulatory expectation and reality of regulatory growth. Explores full dimensions of regulation, dealing not only with economic and social effects, but also with historical background, impact on structure and behavior of business organizations and bureaucracy, and political processes.

The Regulation Game: Strategic Use of the Administrative Process
By Bruce M. Owen and Ronald Braeutigan
Cambridge, MA: Ballinger Publishing, 1978, 271 pages

Using applied price theory, authors identify and examine economic effects of regulation and role of administrative process in six industries: international telecommunications, natural gas, real estate services, cable television, telephone, and surface freight transportation.

Vertical Control of Markets: Business and Labor Practices
By Frederick R. Warren-Boulton
Cambridge, MA: Ballinger Publishing, 1978, 213 pages

Proposes general economic model of vertical control, applicable to all users and responsive to need for analyzing motivations for vertical control and effects. Provides understanding of existing market structure and means for identifying cases having socially desirable effects and where public action is not warranted.

Management Information Systems

Database Administration: Concepts, Tools, Experiences, and Problems
By Belkis Leong-Hong and Beatrice Marron
Washington, DC: National Bureau of Standards Special Publications, 1978, 41 pages, $2.20

Examines concepts and functions of database administration. Discusses tools useful to practicing database administrator (DBA) and problems common among DBAs. Identifies critical needs and common pitfalls and provides guidance to database technologists, managers, new DBAs.

Data Processing Cost Reduction and Control
By Dick H. Brandon
New York: Van Nostrand Reinhold, 1978, 191 pages

Presents 119 techniques for cutting costs in typical data processing installations. Explores relationship between user and data processing organization as area in which both parties can exercise proper cost control.

Design of Management Systems: An Analytical Framework
By Jens Ove Riis
Copenhagen: Akademisk Forlag, 1978, 322 pages

Based on premise that there is no single good way of managing and designing management system. Presents framework to help designer conceive, analyze, and evaluate more feasible designs than he ordinarily would have considered. Intended to open up new possibilities.

Marketing

The Distribution Channels Decision
By Douglas M. Lambert
New York: National Association of Accountants, 1978, 197 pages

Examines how distribution channels decision is made by conducting empirical research on actual decision process in current practice. Study points to need for improved accounting information systems for channel management. Includes criteria currently used by managers when determining channel structure and when selecting channel members.

Organizational Studies

Career Dynamics: Matching Individual and Organizational Needs
By Edgar H. Schein
Reading, MA: Addison-Wesley, 1978, 276 pages, $5.95

Studies complexities of career development from both individual and organizational perspective. Provides overview of interaction between career and other aspects of life such as family, and manager attempting to design total human resource planning and development system.

Effective Management and the Behavioral Sciences
Edited by William Dowling
New York: AMACOM, 1978, 285 pages, $12.95

Conversations with behavioral scientists such as Chris Argyris, B. F. Skinner, David McClelland, Fritz J. Roethlisberger, and Peter F. Drucker, whose writings are relevant to management processes and problems. Each conversation attempts to answer questions: How do insights of these men apply to specific problems faced by managers? What evidence indicates that these insights actually work?

Sociotechnical Systems: A Sourcebook
Edited by William A. Pasmore and John J. Sherwood
La Jolla, CA: University Associates, 1978, 365 pages

Resource articles indicating sociotechnical system research continues to flourish because of its contributions to planned organizational change. Presents variety of sociotechnical organization methods, letting reader decide which is useful in given situation.

Planning and Control

Accelerated Growth Planning: Profit Improvement Strategies for Consumer, Industrial, and Service Business Game Plans
By Mack Hanan
New York: McGraw-Hill, 1978, 340 pages, $14.95

Step-by-step methods explaining how to set growth strategy that is cost effective, measurable, and achievable. Emphasizes "branding principle," stating only brands or rebranded commodities can command premium prices that growth profits depend on. Includes worksheets in plotting specific growth strategies for company.

Interfirm Cooperation and Strategic Development
By Bengt Högberg
Göteborg, Sweden: BAS, 1977, 192 pages

Defines cooperation as explicit long-term agreement between two or more firms, independent in terms of ownership. Illustrates different forms of cooperation such as joint ventures, joint programs, and contracting. Explains cooperative behavior of business firms.

The Lease-Purchase Decision: How Some Companies Make It
By William L. Ferrara
New York: National Association of Accountants, 1978, 49 pages

Continuing research effort in area of business decision models. Explores potential for developing management accounting system consistent with decision processes and managerial uses of accounting information in decision making.

R&D Management

Systematic New Product Development
By Gordon Douglas, Philip Kemp, and Jeremy Cook
New York: John Wiley & Sons, 1978, 173 pages, $19.95

Emphasizes how creative input can be systematically integrated with market research and forecasting methods to produce effective and accountable approach to new product development. Includes working examples in developing approach.

System Dynamics

Managerial Applications of System Dynamics
Edited by Edward B. Roberts
Cambridge, MA: MIT Press, 1978, 669 pages

Illustrates application of system dynamics to overall strategic planning and managerial problem solving in corporate functional areas of manufacturing, marketing and distribution, research and development, and finance and control. Treats systems analysis of societal problems that impinge on manager's social responsibilities.

Work Measurement: A Systems Approach
By George L. Smith, Jr.
Columbus, OH: Grid Publishing, 1978, 123 pages, $7.95

Integrates theory and practice. Focuses on viewing measurement in systems context. Emphasizes intelligent selection of appropriate measurement system for specific problem.

Other

The Attack on Corporate America: The Corporate Issues Sourcebook
Edited by M. Bruce Johnson
New York: McGraw-Hill, 1978, 348 pages, $14.95

Explores widely held beliefs about antitrust laws and government's role in preventing evils of monopoly. Clarifies responses to false charges of collusion, excess profits, administered prices, predatory pricing, and advertising as barrier to entry. Presents effective rebuttal to attacks on big business.

Business and Environment: Toward Common Ground
Edited by H. Jeffrey Leonard, J. Clarence Davies III, and Gordon Binder
Washington, DC: Conservation Foundation, 1977, 434 pages, $10.00

Designed to improve public's understanding of relationship between environmental policies and economy; to elevate debate between members of business and environmental communities; to explore opportunities for resolving complex issues. Collection of articles, speeches by leading members of business and environmental communities.

Can You Trust Your Bank?
By Robert Heller and Norris Willatt
New York: Charles Scribner's Sons, 1977, 250 pages, $9.95

Documents series of sensational bank failures and near failures that occurred in 1970s. Examines cause-and-effect of failures.

The Chief Executive: Realities of Corporate Leadership
By Chester Burger
Boston, MA: CBI Publishing, 1978, 208 pages

Foreword by John D. de Butts, American Telephone & Telegraph Co. Conversations with prominent corporate executives who describe their roles as chief executives. Included are Ellmore C. Patterson of J.P. Morgan & Co., Howard B. Johnson of Howard Johnson Co., and Dr. Armand Hammer of Occidental Petroleum Corp. Questions range from how chief executive officers really function to where corporate executives draw line between their responsibilities and those of chief operating officers.

Money, Financial Flows, and Credit in the Soviet Union
By George Garvy
Cambridge, MA: Ballinger Publishing, 1977, 223 pages

Covers origins and evolution of Soviet banking in centrally directed economy; the nature of payments and financial flows; structure of credit; foreign trade and exchange; stabilization policies and price developments; and significance of economic reforms of 1965.

The Public's Business: The Politics and Practices of Government Corporations
By Annmarie Hauck Walsh
Cambridge, MA: MIT Press, 1978, 436 pages

Traces growth of public authorities. Examines consequence of choice for quality and nature of authority activities, consumers or users of authority services, various participants in municipal bond market, and the public. Recommends number of measures to open government agencies to public scrutiny, to make governing structures more democratic, and to align goals more closely with public policy concerns.

The Way the World Works: How Economics Fail and Succeed
By Jude Wanniski
New York: Basic Books, 1978, 319 pages, $12.95

Synthesizes politics and economics. Illustrates economic success and failure, from Caesar and Napoleon to Smoot Hawley and Bretton Woods. Thesis states that only when tax rates, as well as distribution of tax burden, encourage savings and production can a country achieve economic success.