Dividend

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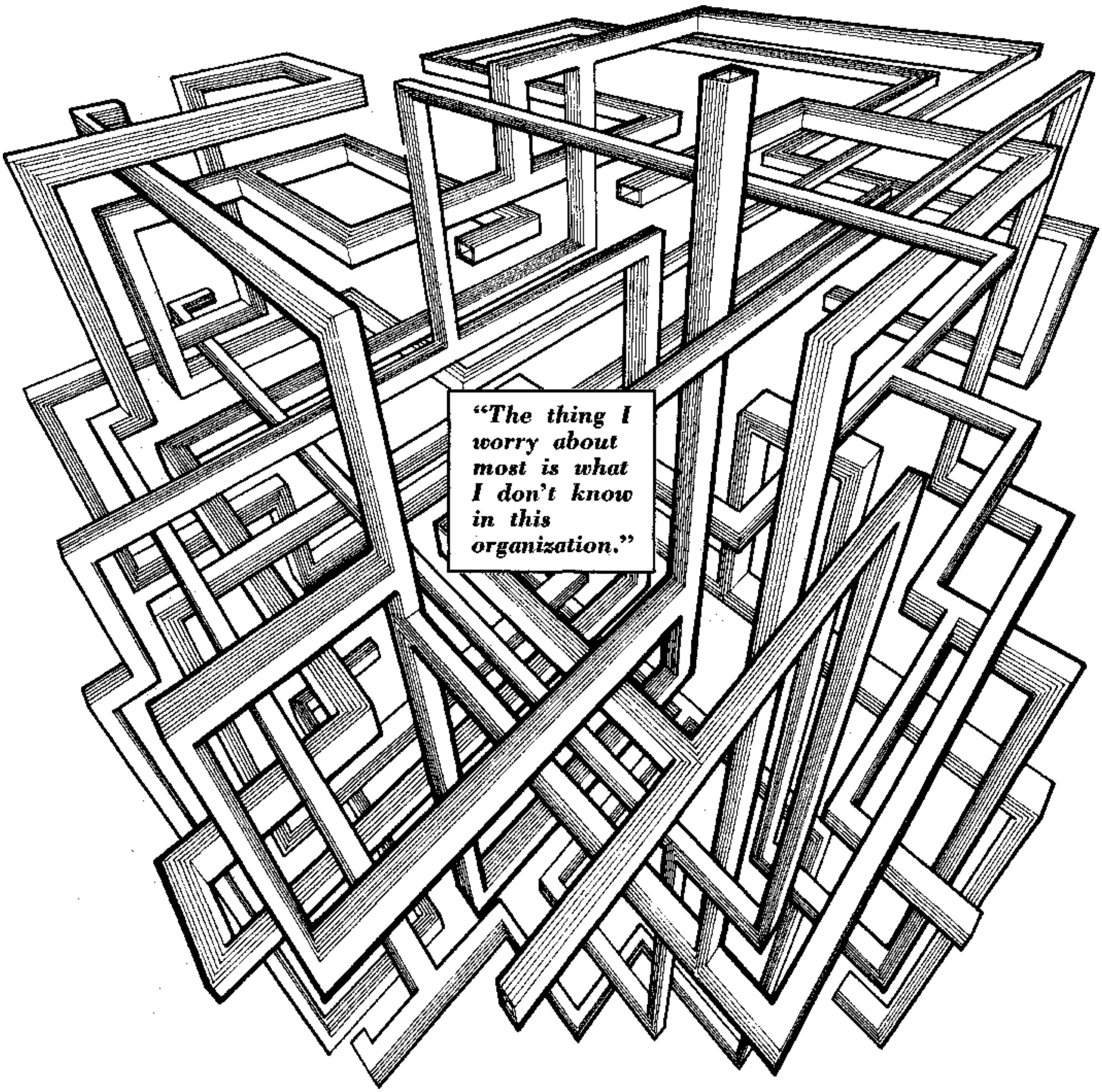

SPECIAL ISSUE: INTERNAL CONTROL

An Introduction to This Special Issue of Dividend

Rocks and Shoals for Corporate Executives

In naval parlance, "rocks and shoals" refers to concealed but serious hazards to which every vessel is subject. Running aground or having the hull pierced by hidden rocks is the fundamental disaster for a ship. Those officers and enlisted men with responsibility for the welfare of a ship bear special obligations for alertness to any possibility of rocks and shoals and must take appropriate action to avoid them. Should the ship run aground, or otherwise come to grief, an investigation to determine cause and. responsibility is required, with severe penalties for intentionally wrong or negligent conduct.

The chief executive officer of a corporation, like the captain of a ship, is considered responsible for what goes on in or happens to his company. A corporation is subject to a number of invisible hazards ranging from petty theft through major embezzlement and misstatement of data to failure to comply with applicable law. Every company has procedures to prevent such occurrences—to communicate to employees what is expected of them, and to evaluate whether they are following the rules. All these kinds of procedures can be broadly included under the title "internal control measures." Internal control is expected to prevent both unintentional and intentional errors and irregularities.

That such measures were not working in some companies came to light in the 1970s, when a regrettable record was revealed of improper payments made for corporate purposes from funds not shown in the paying company's books, of transactions omitted from the books to conceal the purpose of such payments, and of transactions not correctly described in the company's general records. These events gave rise to the passage by Congress of the Foreign Corrupt Practices Act late in 1977. This Act imposes on many corporate managements significant responsibilities that most managements did not want, did not expect, and found uncertain in both nature and extent.

The law makes illegal any direct or indirect payments to foreign officials, governments, agencies of governments, political parties, or candidates for office, if the payments are intended to influence the recipient party to assist in obtaining, retaining, or directing business. It makes corporate management responsible for such payments, even if not directly involved. The law also requires corporate management to establish and maintain an effective system of internal accounting controls. Corporate executives whose companies come to grief from internal control failure are subject to severe penalties.

The rocks and shoals provisions of "Articles for the Government of the United States Navy" present a double jeopardy. The captain whose ship runs afoul of a rock is subject to the same dangers as everyone else aboard. In addition, he must defend himself against charges that through negligence or otherwise, he was responsible. The same is true of corporate management. The executives of a company face not only the loss of company assets and their reputations as competent managers; under the FCPA (Foreign Corrupt Practices Act) they must also defend themselves against charges of responsibility for inadequate controls.

The passage of the FCPA raises all kinds of questions: What is internal control? What constitutes an adequate system of internal control? And (even more basic): What is the state of the art of internal control practices in U.S. companies?

It was this last question that our interdisciplinary research team, led by Robert K. Mautz, Director of the Paton Accounting Center, set out to answer under a grant from the Financial Executives Research foundation (the research arm of the Financial Executives Institute). Early in the project, a decision was made to look at the subject from a broad point of view, and thus the decision was made that the research should be interdisciplinary. Although internal *accounting* controls are certainly an important part of the topic, it was felt that many other aspects are vital to the overall internal control system of a company. Thus members of the research team included seven Business School faculty members from the fields of finance, data processing, accounting, and organizational behavior.

A significant part of the project consisted of interviews with top corporate executives at 50 companies about their companies' internal control measures. In addition, a questionnaire was sent to 2,000 companies representing a cross section of American industry, and a library study was done to discover any relevant published materials.

This special *Dividend* attempts to cover some of the most noteworthy observations and experiences of the research team. The four articles include 1) An overview of the project and some conclusions by research director Mautz, 2) A discussion among members of the team about some of the insights they gained through their interviews with corporate executives, 3) A thoughtful essay on business-government interaction by several members of the team, and 4) A description of the potential for disastrous breakdowns in control because of ongoing developments in the data processing area. The latter two articles are excerpted from the research report itself.

The research report includes two volumes. Volume one consists of a state of the art description of internal control practices in U.S. corporations with special attention to the results of a questionnaire survey and to the perspectives of chief financial officers, internal auditors, data processing managers, and operating and staff executives. Volume two contains 13 articles by one or more members of the research team offering comments and opinions on various aspects of internal control and/or the Foreign Corrupt Practices Act. Both volumes are published in one cover by the Financial Executives Research Foundation, 633 Third Avenue, New York, N.Y. 10017, and can be obtained by writing directly to the Foundation.

This interdisciplinary research is particularly exciting, we think, not only because it has allowed a multi-faceted approach to a topic of practical significance to corporate executives, but also because, aside from the important issues of internal control, it addresses itself to business ethics and business-government interaction, both timely and relevant topics of lively concern to the business community.

Dividend

Vol. XI No. 3 *Spring, 1980*

About the Cover

The quote on our (over was spoken by a perceptive CEO during an interview with our research team, and the maze on which it is overprinted seemed to symbolize beautifully the interlocking hierarchies and networks that characterize the internal structure of U.S. corporations. The maze is reproduced by permission of the publisher from the book. *3-Dunensional Mazes* by Larry Evans •r) 1976. Troubador Press, 385 Fremont St., San Francisco. California.

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AVOIDING ROCKS AND SHOALS: INTERNAL CONTROL IN U.S. CORPORATIONS

By Robert K. Mautz
Professor of Accounting, Director of the Paton Accounting Center,
and
Director of the Research Project on Internal Control

Competition places corporate management under great pressure to achieve success. On the positive side, this encourages management to innovate, to seek better methods of service to customers, to seek efficiency, economy, better control, and anything else that provides a legitimate competitive advantage. On the negative side, under that same pressure managements or employees sometimes undertake actions considered to be socially undesirable.

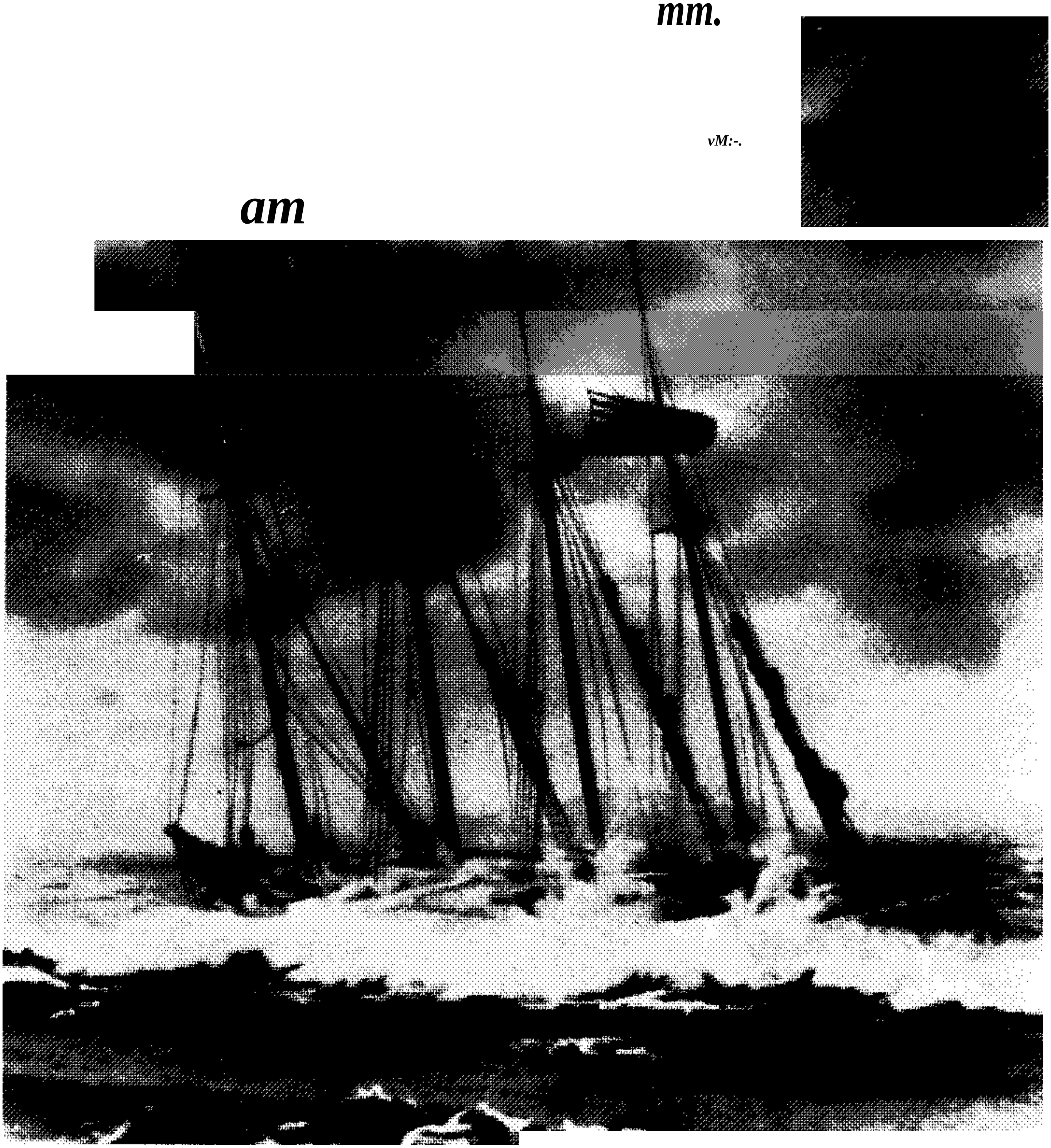
Society is becoming increasingly aware of the possibilities of competition and the economic importance of corporate activity. Concern over possible misuse of the powers of management grows stronger. Society's interest in corporate governance under competitive conditions has been expressed in a number of ways. One of these is the passage of the Foreign Corrupt Practices Act, which, in addition to making political bribes and payoffs illegal, also makes corporate management responsible for maintaining a system of internal control that meets stated objectives. Internal control has always been a component of management's efforts to meet competitive pressure; it is now related to society's concern with what management does in response to that pressure.

Partly because of the growing importance of internal control in the management of large and diversified companies, but also because of the imposition of the Foreign Corrupt Practices Act, the Financial Executives Institute, through its research arm, commissioned a research study on internal control. Included in the purpose of that research was the expectation that it might contribute toward understanding the nature and extent of the burden placed on corporate management by the FCPA. The terms used in the Act to describe internal control and its objectives are not terms of general use in corporate management. As such, they are subject to interpretation. The FEI considered a state of the art study to ascertain and describe present practice to be a desirable step in clarifying corporate responsibilities under the Act.

How does one determine the state of the art of internal control practices in U.S. corporations, and do so within significant constraints of time and other resources? The research program evolved to meet this challenge included the following:

1. A library study to discover any published materials relevant to the topic.
2. A questionnaire, containing 255 points on internal control practice, evaluation, and understanding, mailed to 2,000 companies representing a cross-section of American industry. The companies were selected from the Fortune lists of large U.S. companies and from the FEI membership list. Usable responses were received from 673 companies.
3. An interview program that sent two-person teams to spend a full day at each of the 50 companies to discuss internal control with chief financial officers, legal counsel, corporate controllers, data processing managers, chief internal auditors, and a variety of staff and operating executives. The companies selected were randomly drawn from the Fortune lists of large companies, although not every company so selected was both willing and able to meet our interview schedule.

The questionnaire and the interviews accumulated more information on actual internal control practices than was ever before available. Finding effective ways to marshall,



This is an actual photograph taken November 1, 1878 of the Schooner Rutter, ashore at Ludington, Michigan, Captain Jerry Simpson in command. Twenty eight men in the rigging were rescued by the government tug Graham. After the storm, wrecking tugs pumped her out and towed her to dry dock where repairs were made. In 1898 she was taken to the Atlantic coast trade, and a few years later foundered off the Virginia capes. The Schooner Rutter was built at Marine City in 1873. (Photo used by permission of the Michigan Historical Collections, Bentley Historical Library.)

interpret, and present that data presented a second research challenge.

An Interdisciplinary Team Approach

From the time the research assignment was received, it was apparent that a variety of expertise was required to determine what information was necessary to describe the state of the art of internal control practices and to obtain that information efficiently and economically. The seven members of our group met together in a lengthy series of meetings to exchange views, to explore possibilities, and to devise questions and interview guides. The exchange of expertise within the group and the need to learn from one another constituted an unanticipated but significant benefit of participation.

Certainly, no one of us now thinks he has become an expert in all or any of the other disciplines represented in the group. What has happened is that each of us has learned a substantial amount about the others, and in doing so has obtained a healthy respect for each of the other members of the team and for their contributions. I expect that each of us will find single-discipline research a little less appealing in the future.

The benefits of an interdisciplinary approach were most apparent in the development of the interview guides. To schedule the number of interviews needed in the limited time available made it necessary that any one of us be able to conduct interviews with corporate executives on subjects in addition to our own specialties. Role playing interviews in advance of actual field work provided not only some hilarious moments but also much solid understanding.

Surmounting the Barriers to Applied Research

Nothing is so attractive to a true researcher as the prospect of hitherto unavailable data relevant to his interests. One of the great barriers to applied research by academics is the problem of gaining access to actual experience data in significant quantity. It is a relatively rare experience for an academic to have the undivided attention of a chief financial officer and a representative of legal counsel's office, perhaps with the corporate controller in attendance, for an hour and a half. It is even a rarer experience to be able to follow up such a discussion with equally lengthy and productive sessions with other executives in the same company. Then to repeat such experiences in as many as a dozen different companies and have available the results of such interviews in 50 companies was unique in our experience.

The Financial Executives Institute can provide such data collecting opportunities in ways that can be matched by few if any other organizations in business. In addition, the interest generated by the Foreign Corrupt Practices Act has made internal control a subject of great attention in many corporations. The combination of these two factors plus the added influence of the Paton Center reputation obtained for us many, many hours of senior executive time.

We were impressed with the forthrightness and candor displayed by corporate executives in their discussions with us. We promised confidentiality in advance. On some occasions, the legal counsel queried us about the uses to which we intended to put company responses. Only very rarely were we refused the kinds of information we desired. Among the questions we asked were some calling for subjective evaluations of the internal control systems and practices in the executive's own company. We were gratified to receive frank and revealing answers together with sufficient supporting detail to persuade us of the validity of the responses obtained.

In some instances, especially in the group discussions with the chief financial officer and his colleagues or in luncheon discussions, we had the unexpected pleasure of witnessing the exchange of differing and strongly held views by officers in the same company. In some cases, we were on the responding side. Often, management representatives had questions and points of view they wished to try on us, sometimes seeking our research conclusions while our data collection was still in the early stages.

We arrived at each interview scene, some of them in "out of the way" locations, armed with a notebook and detailed interview guides so that we would not omit any important questions, and so that we could make notes for later expansion and compilation. The first time one attempts such an interview in a topic quite foreign to his experience, the tendency is to cling to the interview guide as to a life preserver. Over the course of the interviewing period, one could notice in any one of us a growing confidence and willingness, even some eagerness, to participate in interviews or industries previously not tried. All in all, the interviews were a very rewarding experience.

Management Modes and Methods

A fascinating aspect of our interview experience related to the variety of personalities, types of organizations, and philosophies of management we met with in our travels. Not every company is solid, mature, and comfortable. Some have just experienced major reorganizations, some are having difficulty ingesting acquisitions that do not merge in readily with the acquirer's activities, some executives are attempting to reverse trends and tendencies deliberately set in motion by the management recently replaced, some are in the midst of economic changes they find distressing, some are definitely on an acquisition binge for a variety of reasons. Out of talks with managers representing all of these different possibilities emerges an appreciation for the great diversity within American business.

Companies differ so greatly that their internal control needs and the solutions to those needs are in almost every case situation specific. To charge management with inadequate internal control is one thing; to support such a charge may require an extent of understanding of the company's unique situation that is not easily obtained.

Government-Business Relations

Whether those who are invested with the authority to regulate business activity have an appreciation of such diversity and its influence on internal control remains a matter of conjecture. What is evident from a study such as ours is that the Foreign Corrupt Practices Act creates a continuing confrontation between business and government. Government has said in the most unmistakable terms: "Business, you have engaged in anti-social behavior. It must not happen again. To assure that it does not, we hereby impose new and additional rules on your behavior and through the accounting provisions of the Act we hold you responsible for establishing practices and procedures that will assure that your officers and employees do not engage in such activities ever again."

From the government's point of view, the rationalization for its rule-making is not difficult to understand. Some corporate executives in U.S. companies had engaged in activities judged improper by Congress. Congress and the SEC were disturbed that internal and independent auditing, board of director participation in corporate governance, and the existence of present laws and moral standards had not revealed and halted such practices. In addition, when the practices were revealed, there was little outrage exhibited by the business community directed at those who had participated in the activities in question. Using the only weapon available for the purpose, legislators took steps to stop what some of them believed should have been prevented by business itself.

Neither is it difficult to understand the resentment of many corporate executives to whom the accounting provisions of the Foreign Corrupt Practices Act appear unnecessarily harsh, costly, and vague. Must all of industry be punished for the faults of a few? Many corporate executives see themselves suddenly faced with a new and significant vocational risk, the risk that errors and irregularities quite beyond their control will be interpreted by laymen as indicative of managerial ineptitude or dereliction—and then be punishable as if criminally intended.

Discussions with corporate executives on matters as close to their hearts as the requirements of the Foreign Corrupt Practices Act are certain to be interesting and sometimes very revealing. That fairly innocuous term, "government-business relations," took on new meaning. The distrust and suspicion that this law has evoked, the fear that it will be used arbitrarily, and the expectation that it presages increasing interference by government in corporate governance all reflect the adversarial relationship that now exists and that appears to be increasing. How can such a relationship lead to increased productivity, to effective international competition by U.S. companies, to managerial cost-effectiveness, to an atmosphere that encourages rather than discourages the best in both government and business? These are the kinds of questions we bring back from our interviews to ponder and to explore with our students and with one another.

Dr. Mautz, a major contributor to the professional literature on auditing and accounting, has received numerous honors in recognition of his work. He was inducted into the Accounting Hall of Fame in 1978, and in 1979 received the Gold Medal of the AICPA, the highest award that organization can bestow.

Conclusions from the Research

I would do our study a great injustice if I were to leave readers with the impression that the study was no more than exciting, interesting, and beneficial to us as educators. It was all of that and more. Out of the substantial body of information and experience accumulated through our research program emerged the following conclusions about the state of the art of internal control practices in U.S. corporations:

1. No standard pattern of internal control practices appears to exist on any broad scale throughout industry. Both needs and practices are company-specific.
2. Corporate management, both financial and operational, accepts internal control as a managerial responsibility.
3. Internal control management includes risk analysis, identification of objectives, the matching of procedures with needs, and a plan for monitoring.
4. Internal control in most companies can be improved, often on a cost-effective basis.
5. The most important needs for attention to internal control appear to be in data processing and in monitoring internal control procedures.

Absence of a Standard Pattern of Control Procedures

The one strongest impression that emerges from our study is the overwhelming fact of great diversity in American business. Companies differ in size, in method of internal organization, in nature of operations, in extent of diversification, in degree of dispersion, in managerial style, in quality of personnel, in variety and importance of problems besetting them at any given time, in past experiences with errors and irregularities, and in the personal experience of present management—and all of these have some impact on a company's internal control system.

Given the extent of this variety and the influence it has on internal control needs and responses to those needs, it is not surprising that no single pattern of internal control practices appears dominant. Certainly there are a number of internal control practices, such as regular and independent reconciliation of bank accounts, for example, that are followed by a great many companies. Yet we found it very difficult, if not impossible, to develop a list of signi-

Meant procedures that a company must perform or be judged lacking in internal control. There are so many differences in methods of operation, in ways of combining control procedures, in substitutions of one activity or procedure for another, that the combinations and permutations seem almost inexhaustible.

Involved in such judgments is the complex and relatively unexplored matter of balancing the costs and benefits of specific internal control activities. We found very few companies that had experienced material errors or irregularities resulting solely from weaknesses in internal control. Most companies have found that their internal control procedures are satisfactory on a cost-effective basis over time. That pragmatic test is the standard that most financial executives apply to their systems, not some ideal set of procedures or an unreachable goal of no possible errors or irregularities.

This state of affairs has strong implications for the evaluation of systems of internal control. Only by intensive study of the specific company can its internal control needs be determined. Only by considering the competing demands for resources can the real cost of adding a new control procedure be measured. Only by a thorough examination of all other control practices can the usefulness of any now unused practice be judged. Cost/benefit analysis of potential improvements in a company's present internal control system is a complex process requiring the evaluation of many management judgments not apparently directly related to internal control.

Internal Control as a Management Responsibility

Both in our questionnaire and in our interviews, we inquired about the responsibility for internal control. Without significant exception, we found that operating management accepts ultimate responsibility for internal control just as it does for other managerial decisions. Indeed, in many cases it was clear that managers do not see any significant difference between operating management and internal control. This is especially true of non-financial managers. Many financial officers have come to think of accounting controls as somewhat different from other control measures. To them, the phrase, "internal accounting control" has a meaning that operating managers do not always recognize. But to no one was there such a clear line between internal accounting control and other control elements that they could distinguish the difference in all circumstances. One of the burdens of the Foreign Corrupt Practices Act is the imprecision of the terms it uses to attribute responsibilities.

Internal Control Management

Our study impressed on us the thought that although there is relatively little formal writing about internal control, there has been some excellent practical thinking about it. As so often happens, practice precedes theory. Intuitively and pragmatically, corporate executives are finding ways to meet the needs of their companies for internal control.

Those ways fall into the following steps:

1. Risk analysis, in which the nature of the company's activities, the opportunities open to officers and employees, and the relative costs of errors and irregularities, should these occur, are evaluated.
2. Identification of objectives, in which the appropriate expectations of internal control for this company are considered. Which risks are either so improbable or so immaterial in effect that they warrant little attention? Which risks are so likely or so material in their effect, if they eventuate in losses, that they must have attention? How does the total of all the internal control risks to which the company is subject match up with the costs the company can afford in meeting them?
3. Matching procedures and risks. Once risks have been identified and ranked in importance, procedures can be selected to reduce those risks to acceptable proportions. A substantial number of common internal control procedures are available for this purpose. In some cases, because of peculiarities of the company or industry, special procedures or combinations of procedures must be designed to meet uncommon needs. We found that many financial executives rate their own internal control systems highly because they feel they have designed effective control procedures for the unique problems of their companies.
4. Monitoring of control systems to discover whether they are functioning as intended and to discover whether additional problems have arisen or otherwise need attention. In most companies, the primary monitoring activity is carried out by the internal audit department, but a considerable variety of other monitoring agencies and methods is also in use.

Financial executives who have the most effective systems appear to have recognized these four aspects of developing and maintaining an adequate system of internal control even when they have not thought about it in these specific terms.

Possibilities for Improvement

What does it mean to "improve" a system of internal control? Until we have a standard against which to measure the quality of any internal control system, talking about "improvement" remains vague at best. In addition, cost must remain a concern. If all improvement means is a reduction in the probability of an error or irregularity regardless of the cost of doing so, we have a different judgment to make than if we expect the improvement to be cost effective.

My thought in suggesting that many companies can improve their internal control is that they have not done all they might in systematic risk analysis, in identification of objectives, in matching procedures with needs, and in developing an effective monitoring system. Our discussions found

Continued on back cover

CORPORATE
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GOVERNMENT REGULATORS
Ls30 lOCy 6V61 work together ?

By Michael W. Maker,
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s a society, we have come in recent years to rely more and more on a process of interaction between the federal government and the corporate community to resolve problems of public concern. While the issues vary—pollution control, employment opportunity, product safety, financial reporting—the main characters ("big business" and "big government"), and the roles they play as they engage these issues, remain essentially the same.

It is no secret that there is wide-spread dissatisfaction with that process and its ability to resolve problems. Business people complain about broad, catch-all legislation and excessive regulation which ignores rational cost/benefit considerations. Regulators charge the business community with insensitivity and lack of responsiveness to public concerns. Meanwhile, opinion polls suggest that public confidence in both business and government has been steadily declining.

This state of affairs should be a matter of real concern for any number of reasons, ranging from self-pre-servation in the case of those with a vested interest in existing institutions, to a genuine desire to have the full

Illustration by Scott McKowen

"Far too often, resolution of legitimate societal problems becomes secondary to the hostile and clumsy process by which government and business attempt to address them."[9]

array of public problems addressed with due speed and in a cost effective fashion.

As a result, the quality of government-business problem solving has received extensive discussion. But that discussion often takes the form of generalizations and appeals to ideology about the proper and respective roles of business and government. In our view, these approaches too often neither sharpen the focus nor provide constructive thoughts on two fundamental questions: (1) how effective is the process by which we attempt to resolve societal concerns through government-business interactions, and (2) how can that process be improved? We offer as a case study the Foreign Corrupt Practices Act.

In 1977, Congress enacted the Foreign Corrupt Practices Act, which requires accurate record-keeping and effective systems of internal accounting control and it prohibits payments to foreign officials, parties, or candidates for the purpose of obtaining business. In mid-1979, the SEC promulgated proposed regulations related to the Act which, if enacted as proposed, will require the addition of a management statement on internal accounting controls to Form 10-K and the annual report. It also proposes that this management statement be examined and reported on by an independent public accountant.

Having just completed interviews with senior executives in a large cross-section of American corporations, we believe we'are in a unique position to comment on the response of the business community to the FCPA and related government actions. While awareness of the Act and knowledge of its implications naturally varied among the executives to whom we spoke, as did the nature of corporate responses to the Act, we were particularly struck by one finding: that in many companies, a major element of the response was purely defensive. We observed corporate counsels busy working on briefs which develop an exceedingly narrow interpretation of the provisions of FCPA. We have seen "FCPA Defense Files" (those are the words typed on manila folders) loaded with legal briefs, review forms, and related documentary evidence of compliance, all collected in anticipation of a fateful day in court the executives sincerely hope will never arrive. We also heard gloomy and bitter predictions that the FCPA will be interpreted as broadly as possible and used by the SEC as "a weapon" against business or as "a wedge" into internal management processes.

Is this an irrational response by the executives involved? Hardly. For while some of these actions and attitudes may be driven by ideology and stereotyping, many executives provide convincing reasons to support their view that a defensive posture is not only reasonable, but prudent and necessary. They point out that the broad language of the law leaves them, as officers and directors, wide open to possible litigation. They note that the Act permits a zealous regulator not only the accustomed opportunity to evaluate the outcomes and consequences of corporate activity, but also the unprecedented right to monitor and evaluate the internal management practices related to such activity. In general, the assumption by these executives that the society in which they operate is highly litigious is not delusion—it is rooted in reality. Similarly, their concern that law can be used selectively and for the purpose of enhancing regulatory power is not a fantasy—it is rooted in experience.

So, many executives have mandated programs of defensive response as a major element of their compliance with FCPA. They readily—and angrily—acknowledge that such programs often involve significant costs (which will be dramatically escalated if the SEC's proposed reporting and audit requirement is enacted), with non-commensurate benefits in terms of improved controls and recordkeeping. Yet, they feel that preparing a defense is a necessary course of action.

Our view is *not* that these executives are behaving irrationally. In fact, we believe that their defensive response is quite rational and reflects good judgment. But we are also dismayed by the circumstances which require us to evaluate this response as appropriate. For what appears to be lost in the legalistic and adversarial interplay between regulators and the business community is nothing less than a clear focus on the underlying societal problem which the FCPA was intended by Congress to address.

The FCPA was essentially a Congressional response to a series of highly-publicized incidents of malfeasance by a small but significant number of U.S. companies. These included Lockheed's payments to Japanese officials in connection with efforts to sell the L-1011, and ITT and Gulf Oil's political payments in a number of countries. In addition, from the Watergate investigation emerged the finding that a surprising number of publicly-owned companies were engaging in a wide variety of illegal or questionable practices. The SEC was alarmed to note that some companies had falsified entries related to these activities in their own books and records.

These revelations had two major effects which together certainly constitute a "genuine and legitimate societal problem" or concern. First, they suggested a possibly serious problem in terms of abuses of economic power by some corporate executives who were attempting to manipulate the political system, both domestically and overseas, through illegal means. Second, they contributed to a significant decline in public confidence in the U.S. business community as a whole (given the inevitable, if unfair, public tendency to generalize from the sins of a few).

The result was predictable: the government acted. (It should be noted that the action probably was consistent with public opinion; this is a reality we find business people reluctant to admit.) The SEC sought through legislation more direct means than it then had to monitor and enforce the internal control and record-keeping practices of publicly-held companies.

This is the historical backdrop against which Congress adopted the FCPA. As SEC Chairman Harold Williams has said recently: "The Foreign Corrupt Practices Act may thus be viewed as a legislative response to the failure of the private sector to keep its own house in order." And perhaps, upon reflection, this is fair. Breakdowns in internal controls did occur in selected companies. Records apparently were falsified. Illegal payments were made. And from within the business community there was no memorable outcry against or sanction imposed upon those companies or their executives whose actions had cost the community as a whole so much in terms of public confidence and increased regulation.

But the question before us today is whether, in fact, the legislation is accomplishing, in a reasonably cost effective manner, its intended purpose. Has it, in fact, focused executive attention on the original, and legitimate, issue of public concern, namely corporate conduct and the use of economic power? Or, are the dynamics of the relationship between business and government today such that attention and effort are being drained away from the underlying problem, and allocated into yet another skirmish in the ongoing confrontation between the two parties? Our interviews leave us deeply concerned that the latter is the case. SEC Chairman Williams appears also to be pondering that dismal possibility. Recently he stated:

> "To the extent that the legal profession takes the attitude that the new law should be viewed narrowly and treated as another government over-reaction, to be complied with grudgingly, in letter but not in spirit, then the Act will accomplish little except to spawn litigation and harden the lines between those who urge more pervasive federal control over corporations and those who advocate less."

Or, to put it differently, *the Act will not only be ineffective in resolving the problems it was intended to address, it will also create additional problems for society to bear,*

This is a pessimistic assessment. Yet, we believe it is a realistic one, applicable to government-business interactions over problems ranging far from those addressed by FCPA. Far too often, resolution of legitimate societal problems and concerns becomes secondary to the dynamics of the hostile and clumsy process by which government and business attempt to address them.

The result? While progress may be made toward solving these problems

"The question before us today is whether, in fact, the legislation is accomplishing its intended purpose in a reasonably-cost-effective manner."

it is made in a manner which is far too inefficient and ineffective. A purely defensive strategy on the part of business results in "defense costs" (e.g., superfluous documentation) over and above those needed to properly manage the business. Executives devote energies to dealing with the adversarial process rather than the substantive problem. And, litigation spawned by noncooperation between government and business is not only costly but also solidifies public impressions that executives only grudgingly deal with public concerns.

How can this state of affairs be remedied? Only a simultaneous shift in perceptions of self and others by the parties involved, driven by a conscious effort to focus on underlying substantive problems and *not to become obsessed by the adversarial process,* will be effective. This is not a simplistic call for better government-business relations based on exhortation alone. Rather, it is an observation that both business and government leaders must modify their traditional stances in some basic ways.

For the *business executive,* it means accepting the notion that an executive position in a large corporation is, in part, a public trust. The corporation has immense economic power and many constituencies including employees, stockholders, creditors, customers, and the general public. The long-run survival of the corporation and the remaining elements of freedom in the enterprise system depend on the ability of the executive to satisfy these constituencies through a broader definition of executive responsibility.

Similarly, business executives must be sensitive to, concerned about, and visibly responsive to legitimate public concerns. An "offensive" strategy which identifies an issue *before* it becomes a law and remedies the problem (as in the case of FCPA) may be less costly to the company, and generate public goodwill, than a "defensive" strategy which responds grudgingly via the legalistic and adversarial process. It also means understanding the intent of and complying with the spirit (not just the letter) of a law, once passed. In our research, we were surprised to learn that few executives had closely followed the events leading up to passage of the FCPA.

For the *business community,* improving the way we resolve public issues involving business means better self-policing and self-regulation. We recognize that this is more easily said than done; yet, it is the only means of defense against costly legislation and regulation which penalizes all members of the corporate community for the transgressions of a few. Certainly few business leaders spoke out publicly against the corporations and their actions which led to the FCPA.

For *government regulators,* improving the problem solving process means first, being objective, informed, and analytical about both the private and social consequences of regulation. Too often, we suspect, the benefits of solving public problems are con-

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Mutterings and Musings

Reflections on the Interviews With Top Corporate Executives

"After all the details had been worked out in advance, we arrived right on schedule for the interview, only to be turned away at the door."

Alan G. Merten
Associate Professor of Management Science

Editor's Note: Members of the research team gathered a great deal of relevant data by going to 50 randomly selected corporations and discussing internal control with chief financial officers, legal counsel, corporate controllers, data processing managers, chief internal auditors, and a variety of operating executives. Two team members went to each company. Because some of the insights gained from the interviews were expressed informally and seemed unlikely to find their way into a research paper, we thought it a good idea to ask the team to reflect, in informal conversation with each other, on their experiences. The resulting discussion was tape recorded, and here we present excerpts. Participants included Walter G. Kell, professor of accounting; Michael W. Maher, associate professor of accounting; Alan G. Merten, associate professor of management science; Raymond R. Reilly, associate professor of finance; Dennis G. Severance, associate professor of computer information systems; and Bernard J. White, associate professor of industrial relations.

Dividend: Let's begin by discussing your impressions as you think back over your interviews with top corporate executives.

Maher: One of my major impressions had to do with the source of control. I had the idea that the owners of the firm are the source of control. But in the companies I interviewed, I found the notion of the owner-controlled firm to be a myth. The firms were management controlled. If you ask, where does the buck stop? The answer is, not at the board of directors and not at the stockholders. The buck stops at top management. They are the source of control.

Merten: I guess I came away with an impression of a very non-cooperative relationship between the business sector and government. There was a feeling that what was in the best interests of the company or of the stockholders was always opposed to what the government was making them do. And they seemed to feel that the Foreign Corrupt Practices Act was just the latest step towards government control of corporations.

Kell: I was impressed by how cooperative people were when we interviewed them. This included people from companies that had had illegal payments problems, and yet they seemed very willing to talk to us and to help us with our project.

White: In the beginning of an interview, we'd have a sense that they were just sort of jamming the session in between other important things, but by the end of the interview, they would usually be so wrapped up in what was happening that we'd be saying "we have to go, we have to'stay on schedule." Why did that happen?

I think first, because the subject was extremely interesting to them, and second, it gave people a chance to think and discuss at a different level than that of their day to day work. It gave them a chance to sit back and reflect on their experiences. Third, I think we broke some stereotypes that they had about academics, what we would be like, what we would be interested in. I think they expected to be bored and interrogated, and instead they found us interested in them and their problems.

Severance: I think in later interviews. they became even more interested when we could say (without giving names), "this is what other organizations are thinking and doing." People were concerned with how *they* rated compared with other organizations. There's very little communication between corporations because there is no explicit form for such communication.

Dividend: Is there a need for communication between companies on internal control matters?

Severance: It's a large potential problem in the Data Processing area, because people tend to underestimate the probability of a computer related disaster occurring because those incidents tend to be hushed up within a company. If it doesn't result in a major loss you don't tell management it even happened, because you were lucky enough to escape it. If there *is* a major loss it is hushed up within the industry because you don't want to look like a bunch of incompetents running the company. But all this leads to a misperception that computer related disasters happen much less frequently than is probably the case.

Dividend: How do managers feel about their own internal control? Do they have confidence that their control systems are pretty good?

Severance: Yes. But the confidence is less as you go to lower levels of the organization.

"This work demonstrates that a university can tackle what I would classify as an applied research problem, and attack it in an expeditious and timely fashion."

Walter G. Kell
Professor of Accounting

White: Part of that is because of the reporting problem. To what extent do you lay before your boss your anxieties about what you perhaps haven't done well, or what isn't covered from a control point of view, when in fact that's viewed as part of your job? That's why I think one of the CEOs we spoke with who was very perceptive said, "The thing I worry about most is what I don't know in this organization." That is probably a legitimate worry, because the question is, how is he going to get that information from a subordinate if it might reflect on the competence of the subordinate?

Maker: The data processing manager might say to us. "I'm new here. This company has real problems, and I don't really know how to deal with them at this time." Yet the chief financial officer of the company would seem to think, "Well, we have a new guy on board and he is taking care of everything and that's it."

Kell: One of the reasons there isn't more sharing among companies is that each company may feel its own situation is unique. For instance, the size of an audit staff varies a lot between companies. To know what a company is doing that has an audit staff three times your size isn't really going to help you very much with your own problems.

White: One more thought while we're on the subject of general impressions. I felt many times that the people we were interviewing are feeling beleaguered today. By government regulations. By societal pressures. I think one of the unfortunate things in our society is that we have put business executives on the defensive to the point where they cannot be honest with the public whom they serve and with whom they interact about their problems and their concerns. As much as anything else these executives came across to me as limited in their capabilities. I'm not saying they're not very capable, but they are just individual human beings sitting on top of enormous organizations. They are concerned about what they don't know, and yet they are really not able to tell anybody that. Except an interviewer. And I think it is unfortunate that we have gotten into that mode in our society.

Merten: That defensiveness was illustrated very well by the interview we didn't have.

White: Oh, that's a great example.

"When goals and means are viewed as separate systems, which is often the case, the chances that they will not be reconcilable are high."

Raymond R. Reilly
Associate Professor of Finance

Dividend: What happened?

Merten: After all the details had been worked out in advance—just as they were on every other interview—we arrived right on schedule only to be turned away at the door. The controller who had made all the arrangements neglected to clear them with his boss, the chief financial officer, who could see only negative benefits coming from a session with us. Even the corporate counsel was agreeable to continuing with the planned interview, but after they retired for private consultations with each other, they returned to us and said they were "agreed" that, in the best interests of the company, they would be glad to reimburse us for any costs incurred but that the interview was off.

Dividend: So what happened?

Merten: We were on the noon plane home.

Dividend: Couldn't you say that you promise confidentiality?

Merten: We did.

Dividend: Then what?

Merten: It wasn't good enough. Nothing worked.

Severance: The CFO said, "I can see potential losses. And even though the losses might be relatively low, I can see no gain. So why should I do this?"

Dividend: The idea being that one of you could be subpoenaed to testify about information you had gained through the interviews?

Merten: Yes, that's it.

Reilly: You know we talk about this as a unique situation, but it may be that those firms that never agreed to see us in the first place went through exactly the same conversation.

Dividend: Could that be a problem with the research?

Merten: Yes. We have, to a certain extent, self-selection. We also have the problem of self-assessment, because we have minimal ability to gauge the accuracy of that self-assessment.

Maker: There I would disagree. When you talk to enough different people in a company about what is going on in the organization, it is pretty hard for one of them to be lying to you without your discovering it.

Merten: It wouldn't be lying. What it would seem to me is . . .

Reilly: Omissions.

Merten: Yes. Just having an erroneous impression.

Reilly: I noticed that when people in the same meeting were in a superior-subordinate relationship, the subordinate was sometimes unwilling to speak his mind. He might offer a token, "Well, I don't think you're right boss," and give us his alternate view, but there were times when it seemed that almost everybody deferred to the highest ranking person in the room.

Dividend: Does this mean that as you go up in the organization, people become more and more removed from the nitty gritty four layers below?

Severance: Information gets filtered out as it moves up. The higher levels often hear what they want to hear, but I don't think they very often get lied to. It's just that a lot of things are not passed on to them. People don't want to appear incompetent, so they don't pass bad messages up the chain of command.

Dividend: What reaction did you get when you asked the question: "If a junior officer or employee believes his superior is violating his company's code of conduct, is there some channel through which he can report the violation without fear of retribution? If such a channel exists, do all employees know about it? Has it been used?"

Severance: Very bluntly, the most common method used is the anonymous phone call or letter. The official answer is, "Of course we have somebody. The internal auditor is the official you should go through." But I think most people at a junior level don't believe that that could be kept confidential.

White: This is a tough problem, because in a lot of cases, organizations are not as trusting and open as senior management would like to believe. So they probably do need those channels, but if you set them up you are implicitly admitting that the organization is not that open. I am concerned about that, because if you go back to some of the events that led to the Foreign Corrupt Practices Act, you may find that here is somebody in the controller's office who's saying, "I think something is really going on there," and his boss is saying, "Well, don't bother about that." The employee may be 25 years old and trying to make a career for himself. He doesn't see any clear way of going around his boss without jeopardizing his job, so what can he do?

Reilly: I was struck by one aspect of this. Executives would assure us that an explicit, anonymous channel was not needed because anyone in the organization could bring any problem directly to the higher-ups. Then they would add, "but of course when a person decides to make an accusation he better have a very good case." It became clear that no one would use such a direct channel unless he was 99% sure he had the goods on somebody. So it seems that an explicit but anonymous channel might indeed be necessary.

White: If a company has a code of conduct—a detailed formalized policy, it's easier to say "I know my boss is in violation. It isn't just my values vs. his values. It's corporate values vs. his action." Then it's easier for the employee to make the decision to go and talk with somebody about it.

Maker: An important point here is that all these issues have to be dealt with in the context of the company. A small town company, where everybody knows everybody else, can afford to operate on a more informal basis. Such a company has a much different set of control problems with different implications for control strategy than does a decentralized company with locations all over the world.

Dividend: What responses did you get to the question, "If you were to come in Monday morning and find the worst internal control nightmare you could think of on your desk, what would it be?" Did most people have to think a while, or did they have their nightmare on the tip of their tongue?

Severance: Oftentimes, once they began thinking, several nightmares occurred to them. Once I asked a head of data processing, "What would happen if this facility were lost through a fire?" He frankly admitted that the company would be dead. Which struck me very strongly, because we had just talked to the chief financial officer who perceived no particular problem. I think part of the difficulty is that some CFOs are still imagining their company the way it was when computers first came in 10 or 15 years ago, when basically we were replacing clerks. But over the years, the volume of activity that the computer is now running for them has made them much more dependent upon the computer than they realize. And, the technology continues to move along quickly, so that we are doing things today that we really don't even know the implications of—such that you could have a substantial loss of control that could disable a corporation in a matter of seconds.

"The technology continues to move along quickly, so that you could have a substantial loss of control in a matter of seconds."

Dennis G. Severance
Associate Professor of Computer Information Systems

Dividend: Is that because you don't have the clerk backup? Because computers are now able to handle so much more volume?

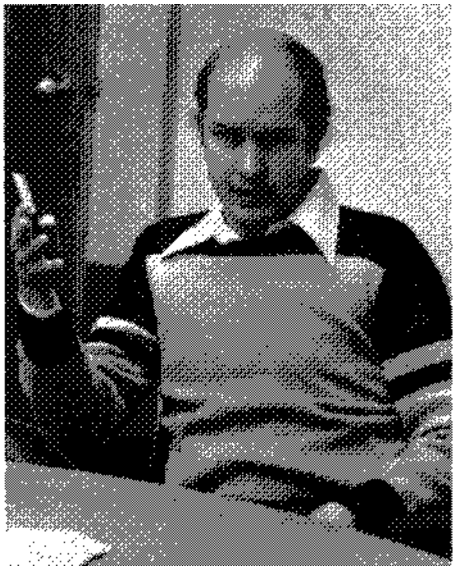
Severance: In some cases the clerks are already gone. In some cases the volume has exceeded any ability on our part to put the clerks back in.

Reilly: I was struck by the difficulty in answering this question. Some people responded by listing a series of relatively minor things—like employee theft or not having a strong enough fence around the warehouse. Others said "our failure to recognize that there might be a 50% cost overrun on a 200 million dollar investment project," which is really answering from a business risk point of view. So the answers to this question were really all over the map—but an amazing number dealt with data processing in some sense.

Kell: I had an interesting answer to this question from a chief financial officer. When asked what his internal control nightmare was, he said, "The greatest risk would be the loss of integrity of employees within this company." Now that gives you some idea of the breadth of responses that you can get. Some people were thinking about fences and petty cash; others were thinking in terms of the computer; yet this executive said the integrity of key personnel. I thought that was an interesting answer.

Maker: In one company, I learned that the major concern was in acquisitions. The company has extensive controls over capital budgeting projects, purchasing, and operations, but when it comes to acquiring another company, there is one man who makes the decision—the president of the company. He sets the price, and there is no control over that at all.

Dividend: That really brings up the question of what does one do, in terms of control, with the very top



"All these Issues have to be dealt with in the context of the company. A small town company has a much different set of control problems than does a decentralized company with locations all over the world."

Michael W. Maker
Associate Professor of Accounting

levels of the company? Wouldn't they be able to manipulate the controls, or to ignore them or to use their position in some way to circumvent them?

Reilly: That goes back to the question of the source of control.

White: That's the reason that corporate governance is one of the hotter social issues in our society today. The question is: when you have a board of directors consisting of insiders or quasi-insiders, is there any real control being exercised over a few senior managers who have immense economic power? One of the things we found was great variability in composition of boards of directors, how active the different boards are, the extent to which they delegate authority to senior management or retain it. That is a very checkered picture out there today. It seems to me that if there is a trend it is toward more active boards made up of more outsiders who are exercising more control review over senior management.

Merten: One question we asked internal auditors was, "Is there anything in the company that is off limits to you?" Nearly everyone said that nothing was off limits. But if you look at responses to the questionnaires, out of the 670, over 50 of them listed something that was off limits to internal audit. It was normally in the area of salary and fringes for executives, or headquarters functions. I am curious as to why those things were written in the questionnaires, but very seldom if ever mentioned during the interviews.

Maker: On the other hand, often we would get the answer, "Nothing is off limits as far as I have tried. Of course I have not tried to look at the executive payroll, top management perquisites, etc."

Merten: In a couple of cases the response was, "If I did want to look into those things, I better have good reasons to be looking."

Maher: From top management's point of view, the buck stops there. So why should they be worried about formal control systems over them? Control for whom? They are the ones who are responsible. If something goes wrong, it's their neck. They go to jail, the stockholders don't go to jail. They get fired, the stockholders don't get fired.

White: There is a devil's advocate point of view to all of this which would say that chief executives have *never* been under such intense overall control, in the sense that corporations do operate in more of a fishbowl today. There are external constituencies today that are constantly calling them to task. I think the response you would get from most CEOs to the question, "To whom are you accountable?" would be "To almost everybody, and intensely."

Dividend: Did you ever find a conflict between performance goals and the means by which those goals are met? For instance, maybe the control mechanism of the company says "don't bribe." But in order to meet the sales growth figure you *have* to bribe?

Merten: When we asked about the costs associated with the bribery provisions of the Foreign Corrupt Practices Act, some companies told us that they were now at a definite disadvantage in countries where bribing is a common practice.

Severance: But there was a counter to that argument. A number of people we interviewed said, "we're in a high technology industry, so the only people we are competing with are other American corporations. If they are not bribing either, the problem dissolves."

Reilly: Many companies were careful to tell us that their budgeting system was outside the internal accounting controls,

Kell: One executive told me that budgeting was completely separate from internal controls. Later, I asked him what he did that had the most impact on controls. The answer was budgets.

Maher: It was pretty clear that when the two are separate, you could be setting up goals within the budgeting system which would be inconsistent with controls in the accounting system. That trade-off decision has to be made by the operating manager. He has to assess the trade-off between meeting profit targets vs. maintaining the internal accounting controls.

White: But the two have to be reconcilable. It's a responsibility of senior management not to present goals that are so far apart that they simply can't be reconciled.

"To what extent do you lay before your boss your anxieties about what you perhaps haven't done well, or what isn't covered from a control point of view?"

Bernard J. White
Associate Professor of Industrial Relations

Reilly: When goals and means are viewed as separate systems, which is often the case, the chances that they will not be reconcilable are high.

Merten: Quite a few companies said that internal control systems are developed by financial people and imposed on operating people who report to other operating people. So on the one hand we have this emphasis on internal accounting control, but because of the separation of duties it isn't clear that this emphasis has had much impact on operating people.

Dividend: Let's talk for a minute about this kind of research. Did it hold any special value for each of you personally?

White: Inevitably academic departments compartmentalize. Lines of research within differentiated areas are developed, and one tends to spend a lot of time making a small incremental contribution within an existing line of research. This study provided an exciting opportunity to cut across areas and look at issues in multiple dimensions.

Reilly: We ourselves are guilty of constantly making reference to something out there called the "real world," with the implication that ours isn't real. When we do work like this, I realize that what I do in my classroom is a lot closer to being real than perhaps a lot of people realize.

White: There is this image that theory comes from academics sitting in quiet offices. But theory comes out of observation of the real world. So I would argue that this kind of research really provides the origin of good theory building.

Dividend: Has your experience with this project changed your research directions in any way?

White: When you break new ground, you take some risks. It may be exciting to move out beyond your discipline area, but the question is whether the external world is going to accept and value the contribution you have made, because you are bucking a trend.

Reilly: The risk was obvious from the beginning, and the benefit was always somewhat nebulous. The risk was that you were going to spend your research time doing something not in your own area and therefore not publishable in the places you would normally think about. The jury is still out on whether the benefits of this type of research will be greater than the costs.

White: So that if people reading about this project wonder why more of this research isn't done, they should understand that there are a whole variety of institutional and professional pressures that mitigate against taking the risks associated with this kind of research.

Kell: Sometimes people associate academic research with being down the road 25 years, or being way out on the esoteric limb. Here we have proof positive that given the right combination of circumstances, the academic community can really help with business problems. I am optimistic that our results will have a definite impact on American industry and on the administration of the Foreign Corrupt Practices Act. This work demonstrates that a university can tackle what I would classify as an applied research problem, and can attack it in an expeditious and timely fashion.

"Several spectacular catastrophies can be expected before the seriousness of the data processing predicament is brought into sharp focus."

Is Your Computer Out of Control?

Some Ways to Avoid a Data Processing Disaster

By Dennis Severance
Associate Professor of Computer Information Systems

and

Alan Merten, *Associate Professor of Management Science*

The risk of a data processing disaster in American corporations today is significantly greater than realized by many senior level managements. Moreover, a number of ongoing developments in the information systems area are likely to further unbalance the current situation to the point where several spectacular catastrophies can be expected to bring the seriousness of the predicament into sharp perspective in the next few years. This article will describe the current situation, explain how such conditions could exist in an otherwise well-managed organization, and offer a prescription to relieve the problem.

Interviews with more than three hundred and fifty executives of fifty corporations drawn at random from American industry revealed that conditions are present in many companies today which will bias a rational manager to build and operate computerized systems which are in fact undercontrolled. This is because the feedback systems upon w'hich management relies for warnings of impending problems are delivering signals which might easily be misinterpreted. Specifically, we believe that there are four sources from which executives derive false comfort when evaluating the adequacy of their data processing control system. They are listed as follows:

First False Comfort: "To my knowledge there has never been a significant, EDP-related, loss of control in this company. Moreover, it is rare that I hear of such a case in any company."

There are two issues to consider here: 1) How well is management informed of past events? and 2) how good an indicator of the future is the past? Years of close contact with data processing professionals has convinced us that near-disasters are relatively common: the inexperienced operator who destroyed two backup copies of a master file while attempting to restore the original; the psychotic employee who succeeded in shutting down a corporate data center fifty-six times in a 24-month period before detection; a sudden realization that secret product formulae were stored without protection on the computers of an outside service bureau; the 500 million characters of online data destroyed when dirt was fed accidentally into a ventilation system.

In situations where significant losses do not occur, there is really no reason to trouble upper management wdth the details of a situation which is being corrected. When an operational disturbance is noticeable, the simplified explanation of "hardware problems" is easily understood, readily accepted and carries no professional stigma.

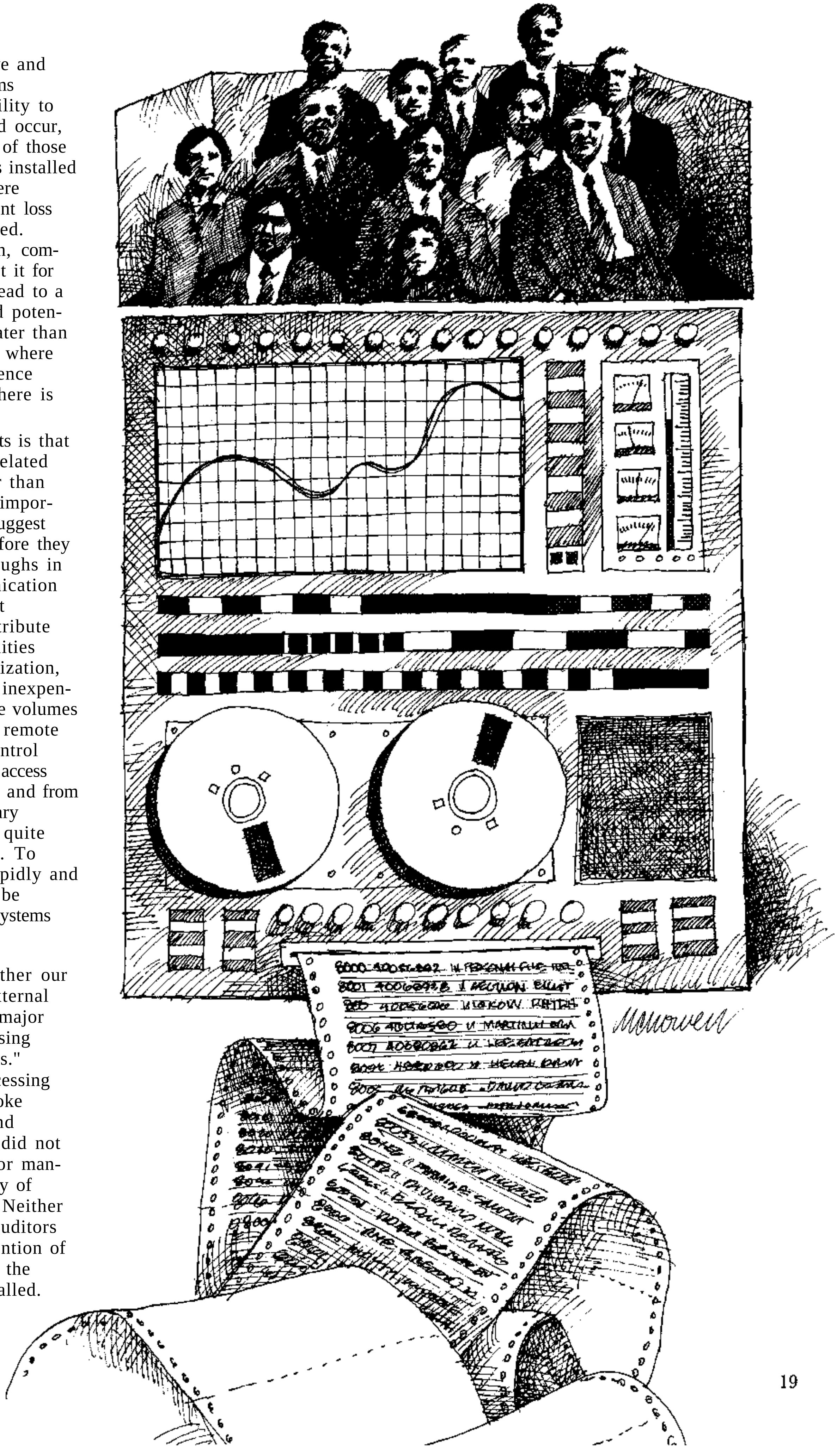
The results of our study indicate that there is virtually no sharing of control concerns and experiences within the data processing community. There is no natural forum for such an interchange, and there is, moreover, an inherent aversion to revealing embarassing facts in public. For whatever reasons, only the more spectacular errors tend to become general knowledge or newspaper headlines: "Design Flaw which Shuts Nuclear-Powered Plant Traced to Computer Program Error," "Near Air Collision Attributed to Computer Failure," "USSR Miffed by Computer Error which Launches NORAD Interceptors," "Accidental Flooding of Census Bureau DP Center Could Have Been Avoided," "Bank Teller Uses Computer to Embezzle $1.4 Million."

Annually, $200 million in computer related losses are reported to law enforcement agencies. The FBI estimates how'ever that this is only 15 percent of the number of detected losses, and, in turn, that this is only 1 percent of the number of actual losses. Our ability to conceive and build useful computer systems appears to far exceed our ability to imagine the errors that could occur, possible misuses, and abuses of those systems. Many of the controls installed in financial systems today were devised only after a significant loss painfully demonstrated a need. Having suffered a defalcation, companies are reluctant to report it for fear that bad publicity will lead to a loss of public confidence and potentially to a monetary loss greater than the crime itself. In instances where a loss results from incompetence rather than embezzlement, there is even less reason to reveal it.

The net result of these facts is that past instances of computer related losses are likely to be greater than management realizes. More importantly, there is evidence to suggest that things will get worse before they get better. Recent breakthroughs in computer and data communication technology will soon make it economically feasible to distribute computer processing capabilities widely throughout an organization, and simultaneously make it inexpensive to provide access to large volumes of data from geographically remote locations. Unfortunately, control procedures to regulate such access adequately are still evolving, and from evidence to date, the necessary mechanisms are likely to be quite complex and very expensive. To satisfy demand for service rapidly and at minimum cost, there will be great temptation to install systems with unproven controls.

Second False Comfort: "Neither our internal auditors nor our external auditors have reported any major weakness in our data processing controls in the past five years."

The majority of data processing managers with whom we spoke believed that the internal and external auditors combined did not possess sufficient expertise nor manpower to certify the adequacy of controls in existing systems. Neither could they believe that the auditors were able to detect circumvention of these controls assuming that the controls were originally installed.



'One computer system room boasted the latest in computer controlled badge readers, while access to its data bases via local terminals was effectively unmonitored,"

Even in those organizations where auditor quality and involvement were highly rated, the general feeling was that the situation was improving, not that existing systems were adequately controlled.

The fact that such a situation might exist without management knowledge should not be surprising. Any professional is reluctant to raise problems for which an acceptable solution cannot also be offered. There are no proven or accepted control standards to be cited by these professionals, and the costs associated with control practices which do exist are very high. Moreover, many control procedures are organizationally unpopular, while the probability of a detectable loss in many exposure areas is low. It is easy to imagine a tendency to rationalize either that a particular situation is actually not a significant problem or that it will not lead to a "material" loss.

Third False Comfort: "Our security systems are the best that money can buy. Because I realize that sound computer system control is essential to this company, I have approved every control expenditure which has been recommended to me."

A computer control system is as strong as its weakest link. In a number of the organizations that we visited, we were fascinated to find that some facets of control were handled with great attention to detail and at substantial expense, wfiile others were completely ignored. One computer system room boasted the latest in computer controlled badge readers, while access to its data bases via local terminals was effectively unmonitored. A second system ran a database management system which controlled database access all the way down to the level of individual data items, while a backup copy of the entire database was kept in an unsecured tape library.

A widely publicized example of uneven controls involved the Social Security Administration. Shortly after spending $500,000 to install a new security system for its computer operations, unauthorized congressional investigators walked out of the computer complex with a set of computer tapes containing the names and addresses of 1.14 million beneficiaries. These files were the input for a system which generates $80 billion a year in benefit checks, and alteration of the file could result in a massive fraud.

Large control expenditures alone therefore do not assure adequate computer system security. A complete, and thoroughly analyzed, security plan is necessary for adequate control.

Fourth False Comfort: "The data processing manager of this corporation is a competent professional. By every standard that I have set, he has been successful in finally turning data processing in this organization around. I trust his judgment."

It is the plight of the data processing manager that gives greatest plausibility to the theory that computer systems are undercontrolled. Within most organizations, data processing is viewed primarily as a service function—it supports the collection, transmission, storage, retrieval, and display of information required by the other functional areas of the business. Users of data processing services are principally concerned with access to desired information; understandably, they seek quick, inexpensive development of efficient, easy-to-use systems.

The poor esteem in which some data processing groups are held today results precisely from their inability to meet this expectation of prompt service, economy, and simplicity. Data processing is traditionally criticized for long lead times on new system development (e.g., two years or more) and for projects delivered both late and over budget. It is on the basis of his ability to overcome this problem that many data processing managers are evaluated. Seldom are they criticized about undercontrol.

Unfortunately, strong control is the antithesis of fast, inexpensive access. The analysis, design, and testing of new systems requires more time and uses more professional staff; a system with adequate controls is generally less convenient to use and is always more expensive to operate than one with no or minimal controls. As with safety devices on automobiles, control mechanisms in computer systems provide no perceived functional benefit. They are not "needed" as long as the system continues to operate "normally," and this is exactly how the user expects that it will operate.

The conclusion is unavoidable that data processing managers must tend to underestimate both the probability of a control loss and the magnitude of its consequences in an environment which they described in interviews as follows:

"Users consider the audit trails to be nonsense."

"The use of that control would probably triple the operating cost of this system."

"If I forced my staff to comply with everything in those standards manuals, they would quit tomorrow."

"Since no system can be totally controlled, how do I know how much is enough?"

"I am evaluated primarily on my ability to get new systems up quickly."

"The internal auditors cannot detect the lack of controls nor the circumvention of existing controls."

"It is not clear that I am responsible for a loss of control in that system. It was built to user specifications and reviewed by internal audit."

"The possibility of that loss is extremely remote."

"If I were forced to leave this job, I would have little trouble in finding another."

It is precisely because the data processing manager is a rational decision-maker that computer systems are likely to be undercontrolled. In the management game he is given to play, undercontrol is part of an optimal strategy.

Our basic message here is *not* "We are sure that you are undercontrolled!" While our interviews provided evidence which suggests strongly that this is true, prudent control is in fact a balance between cost and risk, and it is impossible in a single interview to distinguish between bad control and good business. What was clear, nevertheless, was that conditions which nurture undercontrol were present in most companies. It is this that we recommend be addressed. Four actions are reasonable:

1. Recognize that sound controls in a data processing system may be very expensive to install, operate, and maintain. For example, removal of many of the control risks present in data centers today would require a substantial increase in the number of highly trained internal audit and data processing personnel. In addition, the design and building of new systems may become more time consuming, and control "overhead" during system operation will increase equipment costs and slow response time.
2. Establish a clear locus of responsibility for data processing control. Whether within your internal audit staff or data processing group or somewhere else, this responsibility must be assigned explicitly and at a level sufficient to reflect concern for the problem. The results of an annual, independent review of the EDP control plans of your company should be a specific item in the performance evaluation of the person assigned that responsibility.
3. Require formation of a task force whose size and quality are sufficient to develop and document a comprehensive risk profile and control plan for the company within six to twelve months. This report will provide an opportunity for management to review, evaluate, and possibly redirect the EDP control system of the company. Basic components of the report would be:
   - Assumptions regarding the business environment, changing technology, evolving problems, need for and value of controls.
   - Description of organizational assets to be safeguarded.
   - Potential sources of danger.
   - Types of losses which are possible and the expected likelihood of each.
   - Impact of losses upon areas of the organization as a function of the speed and degree of possible recovery.
   - Alternative prevention, detection, and recovery mechanisms for each significant exposure area, together with an estimate of their cost and value.
   - Overview of relevant control practices utilized by comparable organizations.
   - Special control problems faced by this company and its industry.
   - Evaluation of strengths and weaknesses of the existing control systems within the company.
   - Preliminary recommendations for action, which identify general tasks and their control objectives, and provides a summary of expected costs and benefits.
4. Provide for review of the risk profile and control plan by competent, independent experts to assure thoroughness of the analysis. While this function could be performed by an independent group within the company, a better choice might be an external auditor, a consultant, or a small committee drawn from cooperating local or similar companies.

"The feedback systems upon which management relies for warnings of impending problems are delivering signals which might easily be misinterpreted."

Several benefits are likely to result from these actions. Positioning of the control responsibility and requirement of the report will provide time, resources, justification, and authority for a more thorough analysis of EDP control risk than has likely been done in the past. The company's computer dependency may be greater than imagined and the impact of losses larger than previously thought.

The study will give reason for looking outside at the control techniques and concerns of other companies. Types and probabilities of threats may be greater than estimated while the cost of their countermeasures less than expected. A broader perspective for computer control and a more balanced control plan are likely to result from the study.

Receipt of such a report will provide management an opportunity for review and structured discussion of the EDP control system and problems of the company.

Management can then provide guidance in modifying and refining the general recommendations into a specific plan which is consonant with objectives and risk preferences of the company.

Perhaps at such a meeting, management will first realize that its Model-T computer, which rumbled into the company only a short time ago to replace a few payroll clerks, now travels at dangerously high speeds holding most of the corporate memory on which operational decision-making and financial reporting are based. Perhaps it is time to slow down, or at least to take control more seriously. Given management's need for current and accurate information which often only computer systems can provide, slowing down may not be feasible. More control may be the only alternative.

Among Ourselves

An informal collection of items, including news of the faculty, of alumni, and of the school, and assorted other information, opinion or comment that we think will interest you.

Newly Formed Development Advisory Board Meets at School

Top business executives gathered at the School April 25 to attend the first meeting of the Development Advisory Board. The Board's primary function, according to Anneke Overseth, director of development, is to "review and advise the total development program. This includes specific recommendations for the Business School Fund and the Corporate Associates Program, as well as helping plan a campaign for capital funds for the School."

At its first meeting, the Board heard a presentation by Dean Gilbert R. Whitaker, Jr. on the needs and goals of the School under its new administration. In addition the Board heard a presentation by a student team from an advanced marketing seminar which had undertaken a study of the School's development program as its project for the winter semester. Five competing teams of students, under the guidance of James R. Taylor, professor of marketing, analyzed possibilities for development and made recommendations for future plans. The best of these teams made a presentation to the Development Advisory Board. (A story on the marketing seminar and its findings will appear in the Fall issue of *Dividend.)*

Overseth commented that recruiting members for the board had been a pleasure, because of the interest and enthusiasm with which the concept of a strong and effective development program for the School had been received, adding that almost 100% of those asked to serve on the board had accepted. A list of members follows:

Members of the Board include; Louis G. Allen, President, Manufacturers National Bank and Chairman of the Development Advisory Board; Arthur Bartholomew, Jr., Partner (retired), Ernst 8c Whinney; Ann Catherine Brown, Executive Vice President, Melhado, Flynn and Associates; Joseph Conway, Vice Chairman, National Bank of Detroit; Louis B. Cushman, Chairman of the Board, Cushman Realty Corporation.

David K. Easlick, President, Michigan Bell Telephone Company; John Edman, Vice President of Finance, General Motors Corporation; Allan D. Gilmour, Vice President-Comptroller, Ford Motor Company; Dohn Kalmbach, General Partner, Berman-Kalmbach; Oscar Lundin, Director, Detroit Bank and Trust Company.

Donald Mandich, President, Detroit Bank and Trust Company; Paul McCracken, Professor of Business Administration, The University of Michigan; Don T. McKone, President and Chief Executive Officer, Libbey-Owens-Ford Company; Richard Measelle, Managing Partner, Arthur Andersen & Co.; John C. Morley, Senior Vice President, Exxon, U.S.A.

Bruce Nelson, Partner, Morrison and Foerster, Attorneys; Wilbur Pierpont, Professor of Accounting, The University of Michigan; L. Wm. Seidman, Senior Vice President, Phelps-Dodge; Paul Tippett, President and Chief Operating Officer, American Motors Corporation.

All Kinds of Research Being Discussed at "Brown Bag" Meetings

Every couple of weeks this year, members of the Business School faculty have been meeting over the lunch hour to discuss ongoing research. At each session, a member of the faculty presents information on research in progress, and there is time for questions and informal discussion. The sessions are sponsored by the Division of Research of the Business School, in cooperation with the Dean's Office. To give you an idea of the wide variety of topics being covered, we are printing a sampling below:

The Job Change Decision for Mid-Career Managers was discussed by Raymond E. Hill, associate professor of industrial relations. The findings were based on a large survey done by Hill and Edwin L. Miller, professor of industrial relations, and were interpreted from the standpoint of adult development theories. Two hypotheses were tested: 1) for managers in the 35-39 age category, the change decision will be dominated by a "career peak" psychology; 2) for managers 40-49, the change decision will be dominated by more existential concerns. Both hypotheses were supported by the data.

Diversification, Market Structure, and Firm Performance was a presentation by Cynthia Montgomery, assistant professor of policy and control, focusing on the relationship between a firm's diversification strategy and the structural economic conditions of the markets in which firms compete. The work is part of a larger stream of research which views firm performance as resulting from a combination of variables directly controllable by the firm's management, and other variables which are in the firm's environment, but are less likely to be controlled by any one firm.

Consumer/Voter Attitudes and Behavior in the Passage of the Michigan Container Law was discussed by James R. Taylor, Sebastian S. Kresge Distinguished Professor of Marketing. In the 1976 general election, the voters of Michigan approved (64% to 36%) a proposal requiring refundable cash deposits for soft drink and beer containers. The law went into effect in November, 1978. The research project discussed by Taylor involved a statewide Michigan probability survey conducted just prior to the 1976 election, and a follow-up survey six months after the law went into effect. Adults who were eligible to vote were asked about their purchasing habits and attitudes towards the new law. The objective of the study was to understand and explain voting behavior for a legislated change in the marketing system where there are clear requirements for consumers to change their behavior. The research findings suggest that consumers are satisfied with the law and appear unwilling to alter or eliminate it, as has been proposed by various interest groups. The study was conducted by Taylor and Larry Crosby, assistant professor of marketing at the University of Nebraska, who received his Ph.D. in marketing from the Business School.

Statistical Methodology for Load Research was discussed by Roger Wright, associate professor of statistics, who recently completed a technical paper in which he proposed new techniques for designing load research studies. Electric power companies need to estimate the peak hourly usage of electricity of various groups of customers in order to allocate capital costs fairly and to establish equitable rates. Data describing peak consumption are also used to schedule production and to plan expansion. These data are collected by many utilities in complex load research programs which use statistical procedures designed to produce reliable data at minimal cost. Wright's methodology is expected to have immediate application in helping electric utilities meet the requirements of the Public Utility Regulatory Policy Act of 1978. These methods are also likely to be useful in other sampling applications that are similar in mathematical terms to load research work.

Capital Asset Replacement Under Conditions of Changing Prices: Because of double-digit inflation, current tax laws "understate" the depreciation deduction and "overstate" taxable income. A method for dealing with this problem is to index depreciation to reflect changes in the prices of assets. Research by Michael W. Maher, associate professor of accounting and Timothy J. Nantell, associate professor of finance, demonstrates conditions and assumptions under which the depreciation indexing argument holds, and shows that the introduction of debt financing has a major impact on the argument. Because the "premium" paid to lenders to maintain the purchasing power of the principal loaned is treated as interest under current tax laws, depreciation indexing will overcompensate for the effect of inflation if the corporate tax rate exceeds the lender's tax rate. Thus, with increasing inflation, current tax laws create incentives for managers to rely more heavily on debt to finance capital investment.

"Strategic Planning in a Turbulent and Politicized Environment" was the topic of a talk given by Brice A. Sachs, executive vice president of Exxon International, to business students who filled Hale auditorium to hear what he had to say. He is pictured here talking informally with students before his speech. Sachs began his career with Exxon as a mechanical engineer in 1951 and was assigned to a variety of jobs in Exxon Research and Engineering Company and in Exxon International until 1972, when he became deputy manager of Exxon Corporation's Corporate Planning Department. He became executive vice president of Exxon International in 1976.

Doug Fraser, Marina Whitman Speak at B School

The international economic environment of the 1980s was the topic of a talk by Marina v.N. Whitman, vice president and chief economist of General Motors Corporation. She spoke March 27 in Hale auditorium. Douglas Fraser, president of the U.A.W., spoke in Hale auditorium April 2 on the Chrysler issue, his participation in the Senate hearings, and his recent visit to Japan.

Prior to joining GM, Dr. Whitman was Distinguished Public Service Professor of Economics at the University of Pittsburgh. She previously served as a senior staff economist with the Council of Economic Advisers (1970-71), as a member of the National Price Commission (1971-72) and was chosen by President Nixon as one of three members of the President's Council of Economic Advisers (1972-73). She has contributed frequently to the economics literature. Her most recent book—*Reflections of Interdependence* was published in 1979 by the University of Pittsburgh Press. She has also conducted a weekly television program, "Economically Speaking," that was carried by 180 public broadcasting stations.

Fraser, who was elected president of the U.A.W. at the May, 1977 convention, led the union's bargaining committee along with Reuther in 1964 at Chrysler where U.A.W. won its historic early retirement program. In 1967, he again led the team at Chrysler which negotiated the first U.S.-Canada wage parity agreement. He was elected a vice president of the union at the 1970 convention, and led the U.A.W bargaining team at Chrysler with the then U.A.W. President Leonard Woodcock in both 1973 and 1976. Following his talk, Fraser met informally with students.

Douglas Fraser and students talk after Fraser's speech.

Publication on Reducing Worker Absenteeism Is Now Available

A new publication entitled "Reducing Worker Absenteeism" (72 pages; $10) is the edited transcript of a workshop held at The University of Michigan. It is edited by Dallas Jones and Edwin Miller, Business School professors of industrial relations, and John A. Fossum, associate professor of industrial relations at the Business School. It is published by the U-M Industrial Development Division in cooperation with the U-M Graduate School of Business Administration.

"There is no single cause of absenteeism," the editors point out. "Elements of the work environment contribute to the problem. Employee personalities also play a role. This is why different industries have developed a variety of seemingly inconsistent approaches to absenteeism control. Some successfully emphasize rigid rules and discipline. Others have achieved comparable results through increased employee freedom and sensitivity training for supervisors.

"The consensus of contributors to 'Reducing Worker Absenteeism' is that absenteeism programs must be tailored to unique work environments and employee populations."

Participants in the workshop, from which the book originated were: Drew Danko, manager, Administrative Personnel and Organization Research, General Motors Corporation; Janice N. Hedges, senior economist, Division of Labor Force Studies, U.S. Department of Labor; Bernhard Hoffman, personnel director, Henry Ford Hospital, Detroit; Jack Reynolds, vice president, personnel, Consumers Power Company, Jackson, Mich.; J. W. Streidl, director, Management Development, Tenneco, Inc., Houston; Larry Williams, manager, Detroit Area Training Center, Chrysler Corporation; and Peter Wright, manager, Arbitration and Contract Preparations Department, Labor Relations Planning and Analysis, Ford Motor Company.

Copies of "Reducing Worker Absenteeism" are available from the Industrial Development Division, Institute of Science and Technology, U-M, Ann Arbor, Mich. 48109.

McCracken Discusses Economic Expectations for the 1980s

The U.S. share of the world economy will continue to decline in the 1980's, accompanied by further erosion of this nation's already reduced international influence, University of Michigan economist Paul W. McCracken predicted in an address delivered in Japan.

Speaking at a Mitsubishi Research Institute conference in Tokyo, Prof. McCracken said the relative change in America's international position "will be forcing the liberal nations of the world into a painful search for viable new international economic and political structures to replace the old simple but in its time effective hegemonial system" dominated by the U.S. economy.

The demise of the old system was inevitable, McCracken said, and, with the United States assisting in the rise of other economies after World War II, "evolved in part naturally from its own success." He added:

"The process of its demise has been accelerated, however, by the perplexing inability of the United States to manage economic policy in ways that would permit the reasonably stable price level, high employment and persisting gains in real income that have characterized it historically.

"The most fundamental contribution that the United States can make to the orderly evolution of the new system is the better management of its own economic policies, urgently needed at home in any case. This can be done, and there is a growing disposition to support these needed actions."

McCracken, Edmund Ezra Day Professor of Business Administration, has twice served on the President's Council of Economic Advisers.

The U-M economist emphasized that "it is essential that present tensions and strains not turn governments and their policies in the direction of protectionism."

"If our nations can sustain strong operating political and economic relationships with each other," he concluded, "in the year 2000 historians may yet record that the twentieth century ended with two better decades than the 1970's would have indicated."

Prof. McCracken contrasted the relative economic positions of Japan and the United States over the past quarter century.

He noted that Japan's productivity and real incomes a quarter century ago were well below those of the United Kingdom, and Japan was still haunted by its early reputation for low-priced and low-quality products on the export market.

Today, he continued, "economic aid activity flows from Japan to other societies. Products made here have world-wide an enviable reputation for reliability, quality, and high technology. The cold statistics on comparative per capita incomes show Japan's economy today to be rich, powerful, and dynamic."

The United States alone accounted for about 27 per cent of the world's gross national product two decades ago (compared with about 5 percent each for Japan and the United Kingdom and 7 per cent for West Germany) and 18 per cent of total world trade, about five times the share of Japan, McCracken noted. Today, the U.S. share of world GNP has declined to just under 22 per cent and its share of world trade is below 13 per cent.

"The fact is that the American economy has not been performing well in recent years, and this deterioration in our performance seems to be accelerating," the U-M economist said. "This is true af all three of the major parameters of the economy's performance—inflation, gain in real income, and unemployment."

McCracken predicted that the U.S. share of the world economy during the 1980's probably will decline more rapidly than normal economic trends would be expected to produce.

"For one thing," he said, "the first part, at least the first half, of the decade must now be devoted to a re-stabilization of the American economy. Much of this effort must center around the problems of regaining control of the price level, but the need extends beyond this to a more fundamental revitalization of the economy generally."

He expressed skepticism about the administration's determination to balance the budget and pursue monetary restraint, adding: "Moreover, fundamental actions to revitalize the economy and to restore its capability to deliver gains in productivity and real income have yet to be taken. Even after these programs are put in place, their good results will show up only slowly in the economy."

McCracken cited declining growth of the net stock of capital per person at work and of new technological development as important factors in the economy's faltering productivity.

"There is, however, an even more fundamental reason for concern about the diminishing capability of the American economy to deliver economic progress," he said. "While it deals with matters that are intangible, it is perhaps more fundamental than subnormal investment or inadequate research and development activity or an interlude of poor demand management policies.

"The American society seems to have lost the unifying force and cohesiveness that was provided by a common consent as to what the nation and its society is all about. It is a society, therefore, that seems to be at war with itself."

The Sketches Are Beautiful, But What Size Are They?

Many favorable comments have been received about the sketches of Business School buildings and environs drawn by Bill Shurtliff, Ann Arbor pen and ink artist, and published in the winter issue of *Dividend.* However, we neglected to mention one important detail for those who wish to order the sketches for framing: namely, what size are they? Each sketch is printed on heavy paper which measures 12 and *fy* inches by 9 and 3/4 inches.

Single sketches are $15.00 apiece ($10.00 of which is tax deductible as provided by law). The complete set of six sketches is $75.00 ($60.00 of which is tax deductible as provided by law). Checks should be made payable to "The Business School Fund."

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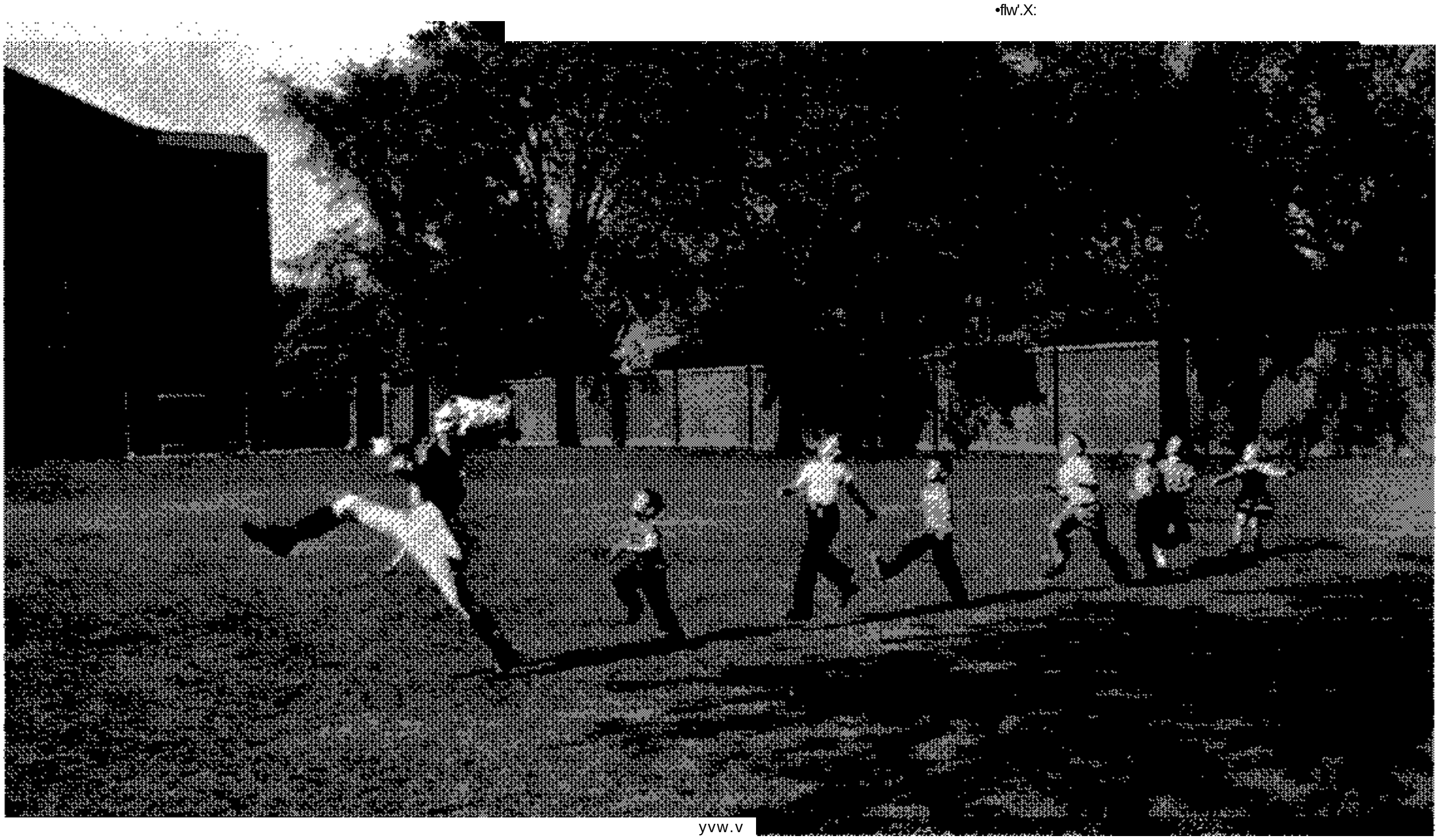

Alfred Eisenstaedt, Life © 1950 Time Inc.

emember this famous photograph by Alfred Eisenstaedt, which appeared in Edward Steichen's well-known photography exhibit, "The Family of Man?" What you may not know is that the high stepping drum major is Business School alumnus DICK SMITH, BBA'53, and the photo w'as taken in 1950 in Ann Arbor, on Ferry Field just south of Yost Field House. Eisenstaedt was on an assignment to cover the U-M Marching Band and happened upon the scene by chance. He recounts the circumstances of the shot in *The Eye of Eisenstaedt:* "I was walking about the campus in the afternoon when I saw the drum major strutting all alone (I suppose he was practicing). A group of children were playing near the wall. They saw him, too, and all of a sudden they ran out and began to mimic him. It happened so very quickly I barely had time to focus [in fact, the faces are blurred], but I think it turned out to be the best, and certainly the most amusing, picture of the entire assignment."

According to the *Ann Arbor Observer,* which tracked down this interesting information and to whom w'e are indebted for permission to use it, Dick Smith now lives in Parkersburg, West Virginia, w'here he is vice-president in charge of finance at The Borg-Warner Chemical Division of Borg-Warner Corporation.

Though Smith didn't pursue music as a career (he majored in accounting), he considers his band days "one of the most important experiences in my life. William Revelli (the Band conductor) had a great influence on me," says Smith. "His strong leadership, his striving for perfection, his industry—the basic values he has are the values I hold important today. It's an experience most people don't have."

Practicing the kicks took a lot of time. "I especially concentrated during the summer," Smith remembers. "And during the school year, I'd put in an extra half hour or hour on drum major practice in addition to the hour-and-a-half regular band practice. It's like anything: if you want to excel, it takes a lot of concentration, effort and practice. It doesn't just happen one day."

' O O A Letter from BERT <wO WERTMAN, MBA'28 tells us that several of his classmates have died recently: DICK MAYNE, on July 1, 1979; MILT BOSLEY, during December, 1979, and BOB HAGEN, after serious heart surgery in November, 1979. They will be missed by their classmates and friends.

'47 MBA'47 recently returned from a six month visit to Helsinki, Finland as a Senior Fulbright-Hays Scholar. In addition to his teaching responsibilities as a visiting professor at the Swedish School of Economics in Helsinki, he conducted research on accounting and prepared a report on the similarities and dissimilarities in financial accounting and auditing between Scandinavian countries and the United States.

The greatest hardship he encountered was the lack of a good business technical dictionary in Swedish to English and Finnish to English. Translations, especially financial statements, can be extremely difficult, he observes. In using the standard dictionary, he found that often he had to use his own business sense to make reasonable translations.

This difficulty, he says, poses a problem when annual reports from Scandinavian countries are sent to U.S. companies who make evaluations and decisions about Scandinavian firms based on this data.

Annual reports are extremely technical in nature, and contain large quantities of statistical information, but good technical dictionaries are in short supply. Translators need to set up a framework of standards, procedures, and generally accepted techniques for international translation standards. There exists a great need for accuracy, uniformity, consistency, and understandability, he stressed.

Dr. Gustafson lectured on financial accounting theory to faculty and students at the Turku School of Economics and the Vaasa School of Economics and also was a speaker and workshop director for the Association of Finnish Translators, who translate annual reports from Finnish and

Please Tell Us About Yourself

We would like to include more news about alumni in *Dividend,* and hope you will help by providing us wish information about yourself. We'd like to know where you are working, and other news about you, such as promotions, new business ventures, any business or academic honors, authorship of hooks or articles, or other information that would be of interest to alumni. If you would take the time to fill out the form below and send it to "Editor. Alumni News, Graduate School of Business Administration, University of Michigan, Ann Arbor, Michigan 48109." we would very much appreciate it.

JName: Degree(s) and Class Years;

Business Position;

B usi ness Add ress:

Home Address:

Please write below some personal or business news about yourself that we can share with other alumni.

Swedish into English. He is a member of the faculty in the School of Business and Economics at Cal State L.A., and has written extensively for professional accounting and auditing journals. He received his Ph.D. degree from the University of Southern California.

'50 ELIZABETH SEEWALDT, BBA'50 writes us, "After being a full-time housewife and mother for 20 years, I returned to the work force as a stock broker for Berlind Securities, a discount brokerage company. I was actively involved in our family investments and had followed the financial news ever since my graduation, so it was with great pleasure that I accepted my neighbor's offer to work for him when he opened his own brokerage office in White Plains, N.Y. I love my work and find it a great challenge. Our business is booming, inasmuch as our rates for transactions are greatly discounted, and the small investor seems to be returning to the stock market. My courses at Michigan have provided me w[r]ith a good background upon which to build my career. My previous experience was as personnel assistant in the International Division of the Ford Motor Company immediately after graduation."

PHILIP H. HENDERSON, MBA'50, is presently manager for compensation and benefits w[T]ith DuPont Asia Pacific Ltd. in Hong Kong. He writes, "DuPont moved the Asia Pacific headquarters office from Wilmington, Del. to Hong Kong in Sept., 1978. While I had been responsible for the compensation and benefits functions for the Asia Pacific area based in Tokyo since 1975, I was pleased to join the new headquarters in Hong Kong. We are now firmly established here and expect the office to expand commensurate with business needs. Best regards!"

'ff *H* J AY VAW TER, BBA'56, «3 4 MBA'57, was admitted to partnership in Stein Roe & Farnham, investment counsel in Jan., 1980. He has been with the firm's New York office since 1977. Vawter has been active in the investment community; he is a chartered financial analyst and a chartered investment counselor. He is also chairman of the Council of Examiners of the Institute of Chartered Financial Analysts and former director of the Financial Analysts Federation. In 1973-74, he was president of the Washington, D.C. Society of Investment Analysts, and he has written several articles on investments and economics. Prior to his present appointment, Mr. Vawter was vice president and senior partner with Loomis, Sayles & Co., Washington, D.C. The Vawter family lives in Princeton, N.J.

'61 RICHARD H. CHAMBERLIN, BBA'61, is Michigan zone manager for Upjohn Healthcare Services, Lansing, Mich., the largest in-home health service in the country. He tells us, "My job is to manage the development, growth and quality of our services in Michigan. It is a general management position, and I am responsible for sales, personnel, credit, marketing and advertising. I manage our offices in Muskegon, Grand Rapids, Kalamazoo, Battle Creek, Lansing, Flint, Saginaw, Sterling Heights, Dearborn and Ann Arbor. We opened a new office in Jackson in March."

YOSHIHIRO MURAYAMA, MBA'61, is president of the Spancrete Manufacturing Company in Tokyo, Japan, which manufactures hollow core prestressed concrete plank. The company has four plants in Japan and enjoys a 90% share of the Japanese market as well as $20 million dollars in annual U.S. sales. He writes that an alumni club of the U-M Graduate School of Business Administration has now been formed in Japan, and that he was elected its first president. Names of the other officers are:
Y. MURAI, MBA'64, vice president;
T. KURATA, MBA'73, secretary;
T. SUZUKI, MBA'76, secretary;
Y. MIURA, MBA'74, treasurer, and
N. BABA, MBA'73, liaison committee chairman.

'63 EDWIN T. FUNK, BBA'59, MBA'63, was recently appointed an assistant vice president of Merrill Lynch, Pierce, Fenner & Smith in the Detroit office. He has been with Merrill Lynch since 1964. He writes, "While in the Business School at the U. of M. I started the Funk & Scott Publishing Company with the assistance of various professors and librarians. The F & S *Index of Corporations & Industries* is now found in most large business libraries as well as being used by financial and marketing research analysts. I sold the company in 1962 to another publishing firm." Along the way, Funk served in the Marine Corps, and then was associated with Schostak Bros & Co., handling investment real estate. Other activities included serving as director of the Detroit Jaycees, memberships in the Economic Club of Detroit, Detroit Yacht Club, University Club of Detroit, and part-time faculty member of Wayne State University, teaching investment courses.

'i^./^ OU ARUN DAGA, MBA'66, has been named vice president of administration for Xerox Corp.'s Information Systems Group (ISG), Rochester, N.Y. In this position, he will manage the activities of the Group's customer administration, systems operations and training for all control personnel. Daga joined Xerox in 1967 and has held a number of management positions, including controller of ISG financial operations, controller of financial planning and controller of profit planning and operations analysis. He and his wife, Sharon, and their children live in Pittsford, N.Y.

JOHN V. BENDER, MBA'66, is currently vice president and general manager for the FNB Financial Company, Los Angeles, Cal. He writes, "On Jan. 1, I was promoted to my present position, and have relocated to Los Angeles. FNB is an affiliate of the First National Bank of Boston, specializing in commercial financing and factoring in the 13 western states."

5ZIQ UO JOHN H. MCCARTHY, MBA'68, has worked with Coopers & Lybrand, the international public accounting firm, since graduation from U-M, and became a partner in 1978. He and his wife have lived in the Boston area since 1968. They have two children and are expecting a third later this year. He is a member of the Mass. Society of CPA's and the American Institute of CPA's.

^SI£\ DOUGLAS C. MCCLINTOCK, \ ) y BBA'68, MBA'69, was admitted as a partner in Arthur Andersen & Co., Detroit, in Sept. of 1979 and will head the 22-member staff of the Detroit office's Small Business and Consumer Products Division. McClintock joined the firm in Jan., 1970. He is a member of the Michigan Assoc, of CPA's and the American Institute of CPA's. He and his wife, Janet, live in Northville with a daughter, Coleen and a son, William.

) r j { \ NANCY JOHNSON, BBA'69, 4 1/ MBA'70, is a candidate for the Ph.D. in accounting at Rice University. She and her husband, TODD JOHNSON, associate professor at Rice, now live in Stamford, Conn. where he is project manager for the Financial Accounting Standards Board (see Ph.D. Notes). She plans to work on her dissertation while in Stamford.

9 P » - | WILLIAM E. LOBENHERZ, • A BBA'71, is assistant vice president for State and Congressional Relations at Wayne State University. In this post, he has major responsibility for overseeing and monitoring all legislation, both state and federal, affecting the University, and represents the University in Lansing on a daily basis. He completed a J.D., cum laude, from WSU, and prior to joining their staff, worked with the State Attorney General's office. Lobenherz also served as assistant executive director for Legal/Legislative Affairs for the Michigan Assoc. of School Boards.

ROBERT E. RUSSELL, MBA'71, is currently manager for Stores Administration here at The University of Michigan and a doctoral student at U-M Center for the Study of Higher Education in business and finance. He writes, "I presented a paper on the University of Michigan Purchasing System at the 1979 CAUSE National Conference in Orlando, Fla. (Dec. 1979). CAUSE is the professional organization for the development, use, and management of information systems in higher education."

A hectic day in the life of Thomas Krouse, BBA '64, MBA '65

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I hen. in the 1970s, the- suppK of bonds almost ttipled. teaching >1."> it ilhon h\ the end ol the de« ade. J he I'.l70s also s,,\s the ptolileiation ol < oinpitlets ami eosth tU sk t ah n la tots th.n greath expanded the scope of possihlt hades.

"October l'>7!' was the waletshed month. The I'edeial Res<r\e Moaid. ahinpth tightening it*- moneta»\ policies, sent interest laics soaring. Btices ol existing bonds, with com paiativeh low interest rates, tumbled shatplv. Since then. Ii\ one estimate, Baheted imestots and poitfolio man- agej- lta\e suffered S-J'M) Billion in papei losses on their Bond holdings.

" *lIt-it[1] at Bathe.' Mi. Krouse sa\s. 'we didn't undttstand vou tonld lose Id points m a month-- it h.td never happenetl The* tompam leacted *h* dashing its toipojate Bond inven toiies neath 'HI",'. told ttaders to t lose out ttades within two tiavs and stepped up the use of the I'mant ial- fulnres matket to hedge against big hading losses flatlets weie encour- aged to at t as middle-men on Bloc k homl hade s for a small fee. tatlnr th.in pnt the fitm's capital at risk.

' \11 ol that remains \er\ muth on the mind of Mi. Kvoust. lie also (ft alls the time earlier this veat when. as a 1.1vol. he bought S!7.[f]>.0OO of indiishial Bonds from an institutional client. Then. Mr. Kionse ie« alb. the Bond matket 'loll ont oi Bed.' Pisces plunged, raising \ields on Bonds a lull two peicentage points. Mam Big bmeis (jititkU deseiled the maiket. It took Mr. Kionse a full mouth to sell the Bonds, and then onh at a suhsiantiai loss."

So tough ate the pressiues thai one wteran tratlei is tjnoted as sa\ing that the piolessional lifetime of a Bond tiader is "like piolessional foot Ball •sou got about It) \eais."

\e\ej tbeless, Krouse seems to tin i\e on the piessure.

money, *n.* 1. medium of exchange, circulating medium, standard of value; note, government certificate, bond, government bond, savings bond; currency, cash, cold *or* hard cash, legal tender, greenbacks; coin, specie, change, pocket *or* small change, coppers, pennies, nickles and dimes, *SI.* chickenfeed, *SI.* peanuts, *SI.* small potatoes; paper money, bills, banknotes, *Inf.* folding money; almighty dollar, lucre, *Disparaging,* filthy lucre, *Disparaging,* pelf; *All SI.* dough, bread, moolah, mazuma, jack, long green, shekels, spondulicks, cabbage, lettuce, spinach, scratch, dibs, do-re-mi, loot, gravy, simoleons, wampum, *U.S.* bucks, *U.S.* kale.

2. mint, pile, heap,wad, *Inf.* boodle, *SL* bundle, *SI.* big bucks.

3. wealth, affluence, opulence, prosperity; riches, treasure; property, means, wherewithal, pocket; capital, funds, assets, finances; nest egg, *SI.* cushion, *SI.* tidy bundle.

4. profit, gain, *Inf.* percentage, take, *SI.* rake-off, *Brit. Dial.* get.

^fmjfam FRANCK J. MOISON, MBA'77, • 4 is a brand manager for Colgate Palmolive, Courbevoie, France. He tells us, "I would be very pleased to meet any professor from the School coming to Paris on a business trip. I hope the School will keep up its efforts to develop its international reputation (i.e. by recruiting foreign students)."

Pll.D. NOteS

HADLEY P. SCHAEFER, Ph.D.'63, is currently head of the department of accounting at the University of Iowa. Since 1976, Schaefer has been associate dean for graduate programs in the College of Business Administration there.

EDWARD H. JENNINGS, Ph.D.'69, became president of the University of Wyoming on July 1, 1979. He had been a member of the faculty of the College of Business Administration at the University of Iowa since 1969, and in 1976, became vice president for finance and university services at the U. of Iowa.

HENRIK O. HELMERS, Ph.D.'67, has been named associate dean of Queen's University School of Business in Kingston, Ontario, where he is responsible, in part, for faculty development, curriculum coordination and administration, as well as teaching duties. He is the first to hold this newly-created post. Before coming to Queen's in 1969, he was assistant director of the Bureau of Business Research at the The University of Michigan, where he began his teaching career in 1963, after spending 14 years in industry. When Queen's opened the Donald Gordon Centre for Continuing Education in 1973, he was appointed its first director. He is author or co-author of a number of monographs dealing with marketing economics and management.

L. TODD JOHNSON, MBA'66, Ph.D.'72, is currently on leave from his post as associate professor and director of the accounting program at Rice University. He has taken a %V$_2$ year leave to join the Financial Accounting Standards Board in Stamford, Conn. as a project manager responsible for identifying problem areas in financial accounting and directing a group of assistants to provide solutions to the problems. The FASB sets reporting standards for all members of the AICPA. His wife, Nancy, BBA'69, MBA'70 is a candidate for the Ph.D. in accounting at Rice, and plans to work on her dissertation while in Stamford.

Corporate Executives and Government Regulators: Can They Ef?er Work Together?

Continued from page 11

sidered, while the costs are not.

Second, it means focusing on and holding management accountable for results and outcomes, rather than attempting to regulate the underlying organizational and managerial processes. Compliance should be measured in terms of reasonable accomplishment of objectives and problem resolution. FCPA has created a good deal of consternation in the business community by its direct reference to the adequacy of the corporation's system of internal accounting controls.

Finally, improving government-business problem-solving requires government regulators to encourage and accept self-regulation by the corporate community as an effective and preferable alternative to government regulation, when (and only when) business leaders in fact assume this responsibility.

We recognize the great difficulty in implementing these recommendations. There is little history of cooperation between government regulators and the business community on which to build the coordinated effort which is required. But the alternative is to continue hardening the lines in the adversarial stance between business and government. The loss is not only inefficient and ineffective resolution of problems of public concern. It is also continued erosion of public trust and confidence in these central institutions of our society.

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Avoiding Rocks and Shoals: Internal Control in U.S. Corporations

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many corporate executives who already recognize this and are working at remedying the deficiencies of their systems.

Greatest Needs

Included in our research team were two members with a keen interest in and considerable experience with data processing. We were fortunate to have them. However, even those of us without such expertise soon came to realize the problem that increasing application of rapidly advancing computer technology poses for internal control and for information security. Very few financial or general management executives have an adequate understanding of the state of the art of data processing. The incentives and rewards in that activity are such that speed and ease of use take precedence over control. Without general management support, internal auditors and controllers are sometimes unable to obtain the resources, including qualified personnel, to perform their functions adequately.

When we asked the question, "Where would you put additional funds for internal control if such funds were available?" we commonly received responses that had something to do with the control of data processing systems. Often, this was a desire to include in the internal audit function sufficient technological expertise to permit participation in the design and installation of new data processing systems as well as the audit or review of systems already in operation.

Internal audit is not the only means of monitoring the existence of internal controls, but it is one of the primary means. Some companies are constrained by a lack of qualified internal auditors. Another response to the question of how increased funds would be utilized was to expand the internal audit staff so that monitoring could be more frequent, more complete, or more technologically competent.

Implications of the Findings

What are the implications of these findings? A temptation to challenge the Foreign Corrupt Practices Act as "bad law" is great. A more prudent judgment is that it may become a bad law. Its imprecision, its potential for interference in corporate governance, its possibilities for harassment of management on matters of judgment are real and could lead to litigation ad infinitum. On the other hand, its mere existence has led to an increased interest in a highly important responsibility. If let stand as a threat and an encouragement, to be invoked only in instances of clear violation, the Act's negative aspects can be minimized and a net positive contribution may result.

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Members of the research team will conduct intensive 2 day seminars this fall, during which they will explore their findings in detail and give their recommendations for corporate response to the requirements of internal control. For more information on these seminars, fill out the pre-addressed postcard at left.