U.S. ACCOUNTING: A NATIONAL EMERGENCY

Accounting must move into the information technology era.

by Robert K. Elliott and Peter D. Jacobson

The U.S. financial accounting model is important to the country's national competitiveness. The model, however, is broken and needs to be fixed. Its periodic, historical, cost-basis financial statements served the bygone industrial era well but are not sufficient for evaluating information-era companies. Worse, they discourage companies from departing from the obsolete industrial era while competitors (principally Japan and Germany) are not being held back. Unless the model is brought into the information era, U.S. industry will continue to be hampered by high capital costs, nasty financial surprises in the marketplace and deteriorating competitiveness.

MOVING INTO THE INFORMATION TECHNOLOGY ERA

Through the ages, mankind has developed three fundamentally different methods of wealth creation: agriculture, industry and information technology (see exhibit 1, page 57). As each new wealth-creation method supersedes the previous one, more sophisticated accounting information is required. Information technology permits leading companies to become more competitive by

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- Getting closer to their customers.
- Improving the quality of goods and services supplied.
- Providing a greater variety of product offerings.
- Cutting their product design and production cycle times.
- Downsizing and operating as truly global enterprises.

All products and services—and the means to produce them—are becoming more information-intensive. An automobile, for example, may contain a dozen or more computers, and computers assisted in its design and construction. Training, research and development, market studies, planning, design, advertising, internal communications and other information activities constitute an increasing proportion of the value delivered to customers.

The industrial-era manager operated within a hierarchical entity, typically with separate marketing, engineering, manufacturing, sales, accounting and finance functions. Hierarchical entities can grow very large, but tend to be slow moving because the separation of functions impedes fast action. Industrial-era managers figure the "optimum" way to perform manufacturing or processing tasks and build the entity's control system to "lock in" the optimum production process. In this system, there are standard productivity rates, and variations are systematically suppressed.

Management's job in an information-era

company is much different. It attempts to organize as a network instead of a functional hierarchy. It no longer focuses primarily on a fixed basket of assets bequeathed by prior management (such as raw materials, finished goods and plant and equipment) and on the relatively fixed goals of production and distribution. Instead, management must focus increasingly on information assets (such as human resources, R&D, information systems, data on customers' needs and capacity for innovation) and on the shifting goals of shorter product design and production cycles, improved quality and greater customer satisfaction.

U.S. ACCOUNTING MODEL: FUNDAMENTALLY INDUSTRIAL

Despite new managerial tasks, accountants continue to supply the same industrial-era financial statements—statements of resources (balance sheet) and changes in resources (income and cash flow statements). Cost accounting models continue to reinforce the fixed-production-processes model. The very account-coding structure followed reinforces the hierarchy: The digits in a general ledger account-coding structure represent the levels of the hierarchy—the left digits are high in the hierarchy (divisional, for example), and the right digits are low (specific activities on the factory floor).

New accounting models are needed to measure rates of change in resources and processes and to account for the off-balance-sheet assets so vital to the information-era enterprise. Management today would benefit from continuous measures of business activity in place of summaries prepared after the fact. Exhibit 2, page 58, compares the features of the industrial-era accounting model with those of a possible (but yet undeveloped) information-era model.

Companies adapting to the information era are aware their accounting systems do not provide the types of information they need to manage. Some are experimenting with systems that measure not only traditional financial attributes but also attributes such as customer satisfaction, internal processes (productivity, quality and cycle time) and capacity for innovation (learning curves and conversion of research to salable products).

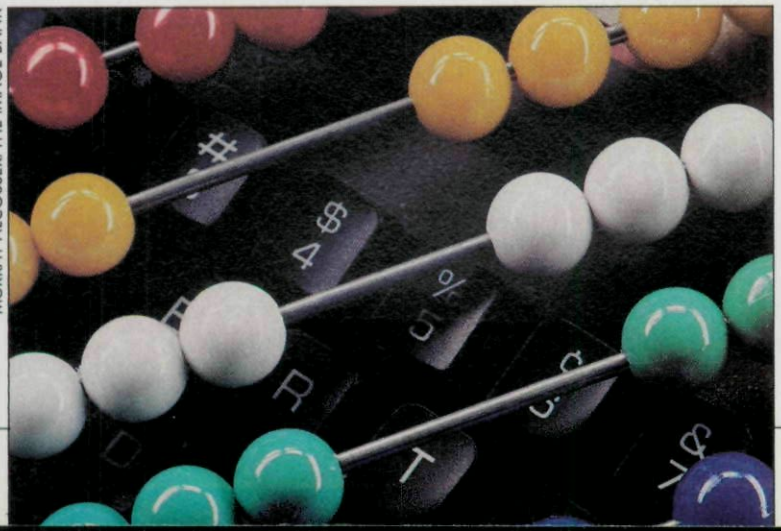
A key difference is the financial measures do not focus on earnings per share (EPS), return on assets (ROA) or return on equity (ROE). Instead, they focus on shareholder value using concepts introduced by Alfred Rappaport in his book, *Creating Shareholder Value*, published in 1986. These include value growth duration, sales growth, operating profit margin, income tax rate, working capital investment, fixed capital investment and cost of capital. Shareholder value can show results radically different from the earlier measures. A company can have rising EPS, ROA and ROE and yet show declining shareholder value.

INJURIES FROM ACCOUNTING MODEL DEFICIENCIES

A number of constituencies have important interests in the accounting model, including investors, management and auditors. The identified deficiencies in the current model injure each of these constituencies in a specific way.

Investors. Although too little is known about the degree to which the current model actually serves the interests of investors, it is known investors obtain and rely on data from many sources other than the financial statements. Analysts meet with management and follow what they can about the company's research, the quality of its products and its cycle times. These matters are treated as significant by the financial press. No one denies they are relevant. Yet their absence from financial statements means the statements cannot be fully relied on to judge stewardship. Investors either go without such information or are forced to rely on presentations that may be oral, unaudited and impressionistic. Such presentations are not distributed as efficiently as financial statements.

Management. The persistence of the industrial-era financial reporting model increases the cost of capital. How? The risk-free rate of return—the Treasury bill rate—can be used as a starting point to predict companies' cost of capital. To that rate are added premiums for economic risk and information risk—the risk that economic risk is misperceived because of incomplete,



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insufficiently relevant or insufficiently reliable information. The less certain the potential investor is about his or her understanding of the economic risk, the higher the information-risk premium charged. Conversely, the more certain the potential investor is about understanding the economic risk, the lower the information-risk premium. Today's periodic, historical, cost-basis financial statements do not provide as complete a set of relevant entity-specific data as is feasible to enable potential investors to understand the economic risk of investing; this undermines the spirit of management's discharge of its fiduciary responsibilities to shareholders.

Although the full effect of industrial-era public reporting on management is unknown, there is reason to suspect it is not good. An intense focus on the information that might be usefully reported for an information-era enterprise should bring to light the types of data that can serve management's decision making.

Auditors. An audit report is only as useful as the audited information. If financial statements grow less relevant, so do audits of those statements. Already there is growing evidence of price competition in the marketplace for audits. This could be a sign audits have begun to lose their role in diminishing information risk because the audited financial statements, even when credible and reliable, are less effective in diminishing information risk.

Standard setters. The Financial Accounting Standards Board has lost some of the constituency support it had when it was founded, not necessarily in numbers of constituents but clearly in their degree of enthusiasm. Moreover, the FASB has been criticized for adopting requirements that are unnecessary, too frequent and too detailed and that fail to meet the test of providing benefits greater than costs. The relevance of the required information, which can weigh so heavily on the benefits side of the equation, should be a more central part of such debates.

In the long-term, the FASB's support will depend on how it performs the second of the activities designed to achieve its mission, namely, "[to] keep standards current to reflect changes in methods of doing business and changes in the economic environment." As seen, there have been momentous changes since the current accounting model was developed. Responding to the transformation from an industrial- to an information-era business world could shift the dialogue about the FASB's performance more toward what information best serves users at this point in the economy's evolution.

The U.S. economy. Ways in which the current accounting model keeps companies from adapting to the information-era economy have been noted. The model does not provide information that could improve the efficiency of capital allocation, does not minimize the information-risk factor in the cost of capital and can lead to faulty economic

EXECUTIVE SUMMARY

■ THE CURRENT FINANCIAL accounting model in the United States results in financial statements insufficient to evaluate information-era companies.

■ NEW TECHNOLOGY REQUIRES new types of business and investment decisions to be made, creating a need for new types of accounting information.

■ BECAUSE MANAGEMENT'S JOB in an information-era company is different, management must focus attention on information assets such as human resources and research and development.

■ NEW ACCOUNTING MODELS are needed to measure rates of change in resources and processes and account for off-balance-sheet assets, which are vital to information-era enterprises.

■ INVESTORS, MANAGEMENT and even auditors are harmed by the deficiencies in the current accounting model. Problems also are created for the FASB and for the U.S. economy as a whole.

■ THE FASB NEEDS TO TAKE a leading role in studying investors' information needs and working to educate others about the information-era model. Management, investors and CPAs also can play an important part in pushing for a new model.

■ BECAUSE OF ITS INFLUENCE, the SEC also can take steps to help the United States adapt to the information-era model.

■ IN THE FUTURE, the language of the information-era model can be used to address current and coming problems as well as business opportunities.

decisions. Unrecognized human resource assets, for example, can tempt management to take a short-term earnings lift by dismissing or discouraging skilled personnel, which could be expensive when shortages in skills and deficits in experience hamper future growth and profitability.

Economist Lester Thurow has said the United States, where R&D is charged straight to income, alone among major competitors has an R&D curve that rises and falls with the business cycle. This suggests R&D that can provide future economic benefits should be capitalized, rather than automatically charged against earnings.

WHAT SHOULD BE DONE?

FASB. The FASB should devote more resources to studying investors' needs and educating its constituencies about the information-era model. This could be accomplished in part by a study that also would test the argument that investors need the kind of data the information-era model would provide. The study should examine the relationships among

- Entity-specific information from general-purpose financial statements.
- Entity-specific information investors actually apply in decision making.
- Non-entity-specific information used in decision making (such as the course of the economy and of the industry, potential new competitors).

A parallel study should focus on the information top management uses to make decisions, comparing it to what is made available through financial statements. The traditional distinctions between managerial and financial accounting should not mean one cannot learn from the other. Whatever the differences between the two sets of information, both should at least be based on compatible assumptions about the economics of business enterprises. Moreover, top management may be using information different from either set.

Assuming these threshold studies support pursuing the information-era model, the FASB should develop measurements to recognize operating factors that have predictive value, such as human resource assets, cycle times, innovation, productivity and quality.

In evaluating the trade-offs between the relevance and the reliability of information to be presented to users, the FASB should consider not only the relevance and reliability of the data that might newly be required but also whether investors are depending on less reliable sources for the same information. The comparison to historical cost may make the new information seem soft, but the comparison to other, even softer, information investors are forced to rely on might make it seem relatively hard. It would also throw light on investors' needs—the FASB will be judged by its service to users of financial reports.

Management. Management should seek better performance measures for internal use, as some entities are already doing. It is clearly in their interests to have such measures for managerial purposes, and they may in time contribute to general-purpose reporting. Management could take the initiative by experimenting with voluntary disclosures that fit the information-era model. They would be helpful to the FASB as well as to investors, partly because they would educate FASB constituents about the new model.

Such voluntary disclosures might not be an altogether off-putting prospect to management. The opportunity to recognize new assets, such as human resource assets, for example, might be welcomed, demonstrating additional strengths to the investment community.

Auditors. It would be in auditors' best

EXHIBIT 1
Methods of wealth creation

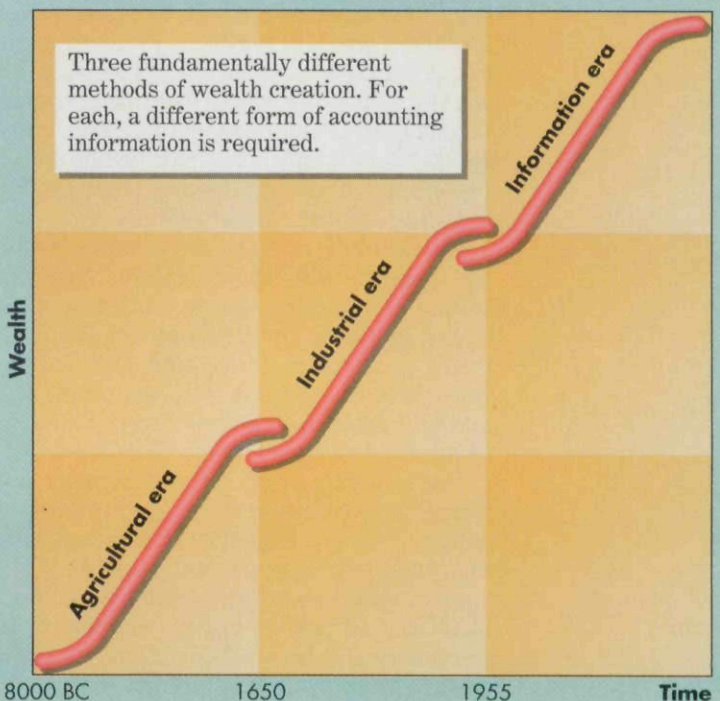

EXHIBIT 2
Accounting models

Industrial era	Information era
Measures resources.	Measures rates of change in resources.
Measures processes.	Measures rates of change in processes.
Measures tangibles.	Measures intangibles.
Focuses inwardly on production costs.	Focuses outwardly on customer values.
Waits for events (transactions) to occur before measuring.	Measures processes in real time.
Reinforces the hierarchy.	Enables the network.

interests to promote the information-era model because they have so much at stake in the viability and usefulness of audited presentations. Such efforts need not be restricted or even primarily devoted to lobbying the FASB. Perhaps the best way CPAs could promote the information-era model is by demonstrating they can report on the new disclosures and thereby provide investors with assurance of the reliability of the measures.

There is a precedent for this kind of work, as anyone who has followed the history of forecasts and projections is well aware. Once demeaned as too soft for presentation, forecasts are now routinely presented with CPAs' reports. Moreover, the precedent should help technically. The basic concept of evaluating the reasonableness of management's assumptions may be the key to reporting on the disclosures that emerge from the information-era model.

Investors. Investors can do more than be the passive subjects of study. Over the course of standard setting since the FASB began its work, investors have been in the ironic position of being both the featured constituency in the conceptual framework and the least active constituency in standard setting's due process. That should end.

Participating in standard setting's due-process procedures, with their discussion memorandums, exposure drafts and hearings, can take a good deal of time. If that time commitment is the reason for investors' lack of participation, selective intervention would be an alternative. Investors could focus their recommendations and comments on the FASB's agenda and also provide feedback on the relevance of the information provided under current standards. In this way they could make the kind of contribution only they can make, providing hard data on investors' needs.

Of course, investors and their representatives may not see it in their interests to have information-era disclosures universally available, because they sell and use their personally developed information on the value of securities. If that is true and will be a fixed condition, it must be accepted frankly, and investors' needs determined without their cooperation.

Securities and Exchange Commission. The SEC has the power to take the initiative on adapting to the information-era model, and it also can influence the FASB to move in that direction. As a public-sector body, it has perhaps a greater obligation to establish a defensible basis for its actions than even a quasi-public body like the FASB. It would therefore be appropriate for the commission to research the need for adapting to the information-era model itself or urge the FASB to do so.

There is a precedent for SEC research on such issues: the Advisory Committee on Corporate Disclosure, whose report was issued in 1977. The committee was the SEC's initiative: Its charge was very broad and its report was well received and influential. In addition, in serving investors through the disclosure system, the SEC has taken steps in the past on grounds that the present accounting model has limitations, for example, the requirement for management's discussion and analysis.

Finally, excessive legal liability exposure discourages management from reporting new information and auditors from attesting to it. The SEC could work toward liability relief (for example, by establishing safe harbors), thus clearing the way for the new model's expanded disclosures.

THE LANGUAGE OF BUSINESS

Accounting has been called the language of business, but there is good reason to doubt that it alone merits that sobriquet today. In literature on modern management and business, another language has taken its place beside accounting. It is the language of the information-era model, used to address the current and coming problems and opportunities of business. The time has come for accounting to study that language, to select from it what elements can be effectively measured and reported and to define how to present it uniformly. ■