The Future of Financial Reporting: Meeting the Changing Demands for Accounting Information

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ABSTRACT

This paper discusses the effects on the accounting profession of recent and future changes in the demands for information. It also discusses potential benefits and costs for accountants as they adapt their services to provide extra value in this changing world. A Case is made for the continuing need for verifiable information to confirm information from non-accounting sources, and the paper presents support for continuous access to accounting information (as opposed to periodic reports) and an expanding scope of available information.

Keywords: Accounting Profession, Financial Reporting, Accounting Information, Information Economics

Companies world-wide have entered an information age. Global companies are increasingly competing on the basis of the quality of their information. Therefore, demands for information, including accounting information, has increased and will continue to grow. The main issue facing accountants is how this huge demand for all types of information will affect what we have traditionally considered as accounting information. Will accounting information continue to be the mainstay for assessing the financial performance and position of companies? Or will it be supplanted, at least partly, by information from other sources?

Let's consider two possible scenarios for the future of accounting: 1) The good news scenario -- demand for accounting information soars as financial information becomes a more and more important tool for decision makers in this information age. As technology allows accounting information to be increasingly timely, flexible, and complete, accounting information takes its place as the dominant competitive tool of the twenty-first century. 2) The bad news scenario - accounting information becomes increasingly obsolete. The information age is already creating many information specialists, and they may compete with accountants. If accountants do not adapt their production of information to meet marketplace demands, and if they do not take advantage of the opportunities created by technology, accounting information may decline in value, and accountants may receive a reduced financial reward for their efforts.

This paper, based partly on the monograph *The Value of Information and Audits* (Sundem, Dukes, & Elliott, 1997), explores ways for accountants to meet the changing demands for accounting information.

CHANGING DEMANDS

There is little doubt that the demand for information about the financial position and performance of companies will increase. When companies were local or national, not global, and when they were organized more simply than they are today, both managers and investors could often assess performance and prospects based on personal knowledge of the physical operation of the company and its managers. Increasing geographical dispersion, wide diversification of product lines, and more use of complex contracts (such as joint ventures, special agreements with suppliers and customers, and use of derivatives and other financing and hedging contracts) have made formal reports of financial information essential for intelligent investment decisions. For example, confidence in local managers is no longer sufficient when managers in Mumbai, Hong Kong, Brussels, Sao Paulo, or any other place in the world can make or break the company's financial performance.

Accounting has traditionally provided much of the financial information used by investors, employees, suppliers, customers, and others to make decisions about an individual company. Most of this information has been conveyed by the company's financial statements. However, financial statements are reports of history, and decisions require predictions of the future. To the extent that history repeats itself, extrapolations of historical financial statements are useful to a variety of decision makers. But the greater the rate of change, and especially the greater variety of possible future outcomes, the less valuable is historical information. Accountants are beginning to realize that change and variety are facts of life that are becoming more prevalent, not less. Thus, the need to adapt financial statements to this new environment is a high priority.

Traditional financial statements focus on assets that have been important generators of income in the past -- inventory, equipment, buildings, land -- items needed to be profitable in an industrial age. Unfortunately, they ignore or have inadequate measurements of assets that are most important today and in the future -- intangible assets such as research and development, human resources, information systems, and management structure and expertise. Thus, balance sheets have a more tenuous relationship with value than they have had in the past. Further, because income is essentially a measure of the change in assets, when the most significant assets of a company are not on its balance sheets, income does not provide a good measure of performance. One may consider Google. It shows net assets of just over \$17 billion on its financial statements. Yet its market value is \$160 billion. Google obviously has assets that are omitted from its financial statements. Its buildings and equipment do not create its value; its people and its ideas do.

Financial statements are also highly summarized reports. Such summarizations are generally useful for users of the information who have limited information processing abilities and/or limited access to other information about companies. But summarization, especially summaries contained in general-purpose financial statements that are the same for all users of the information, is less useful when information processing is fast and cheap. At one time decision makers were limited to information that they could read and think about. Now they use whatever information their computers can input and process. If accountants continue to constrain their reports by what an average person can read and comprehend, other information suppliers will satisfy the demands of the more sophisticated decision makers, those who exploit new information and essentially establish market prices.

If non-accounting information suppliers make use of low information processing costs to provide information that allows users to better understand the details of a company's products and markets, summarized information in accounting financial statements may prove to be of little value. Summarization loses most value when the items aggregated have quite different characteristics that can convey details that are lost in aggregation. For example, segment data are especially important when a company operates in markets with widely varying levels of risk. New technologies exist that would allow detailed reporting of information by market segments, or even customizing segment information to the needs of individual users. However, accounting practice has been slow to incorporate the benefits of these technologies, possibly because of a desire not to disclose information that would harm a company's competitive position.

Since the turn of the century (and even before that), we have seen rapid changes in business practices accompanied by quantum increases in information processing capabilities at ever lower prices. These trends have made historical financial statements less useful in predicting the future returns from investment decisions. The International Accounting Standards Board (IASB), in conjunction with the Financial Accounting Standards Board (FASB) in the United States, has reacted to this by gradually moving from purely historical statements to statements that incorporate an increasing number of current values. The Boards continue their trend toward including even more current cost information. However, the framework of the statements continues to be based on past transactions. In other words, the items contained in the statements are historical events, but valuations are sometimes (but not always) updated to current measurements.

RELEVANCE VERSUS VERIFIABILITY

This movement to include more current value information in financial statements is not without risk. The use of current values does increase the relevance of financial statement information for investment decisions but at the expense of objectivity and verifiability. Supporters claim that relevance is primary; without relevance other

characteristics of the information are worthless. But such supporters often have a narrow definition of relevance -- that is, direct usefulness for investment decisions. Yes, financial statements with current values are more consistent with the valuation framework used by investors. However, there is another use for financial statements -- confirming information. Because financial statements have been more objective and verifiable than information from other sources, they have been useful in confirming the information received from those sources. Often the information from the alternative sources is more timely and more directly related to future investment returns, but is also is less verifiable. The subsequent confirmation by accounting statements disciplines the production and disclosure of such information by revealing, albeit later, the veracity of that information. Those who disclose such information know that a day reckoning will come, a day when the accuracy of their information will become known.

It may be optimal to accept financial statements that are less relevant for investment decisions because they are essential for other, maybe less obvious, uses such as disciplining the information generation and disclosure process. We should not ignore the value of this latter role for accounting information in our rush to make accounting information more relevant for investment decisions. It is possible that accounting information will never compete well in the arena of investment decision making, and sacrificing its confirmation function in an attempt to compete in that arena may destroy any information value in the financial statements.

Let's consider for a moment the efforts to make accounting information more useful for investment decisions. To be useful for such decision, information must facilitate predictions. But who makes the predictions? Is accounting information simply an input into an investor's prediction model, where the user combines it with other information to make predictions? Or should accounting information include the output from an accountant's prediction model (or management's model, as recorded by an accountant)? Until recent years, accountants accepted the first of these positions and limited the number of predictions in the financial statements. Prediction was considered the domain of the users of accounting information. Accountants focused on producing an accurate recording of history. (Of course, there have always been some predictions in historical cost financial statements, because accountants had to allocate costs with future benefits to the periods in which the company expects to receive the benefits, but such prediction was far less than what we see today.)

Recent IASB and FASB statements and additional proposals for accounting reforms increase the number of predictions made by accountants. Pensions, other post retirement benefits, and deferred taxes (especially deferred tax assets, which are driven by assumptions of future profitability) are examples that add more predictions to the basic historical-cost accounting framework. Current cost accounting models, those using either current market prices or discounted values of future cash flows for valuing assets and liabilities, take it a step further, essentially replacing the historical-cost approach. When accountants make predictions, they may be providing additional

information relevant to investment decision makers, but they also sacrifice, at least to some extent, the verifiability of the numbers. It is not obvious that the value gained in decision-relevant information is greater than the value lost due to the lack of verifiability.

Both the IASB and the FASB are headed in the direction of using more market values in financial statements. Market values are essentially consensus predictions of future returns. When assets are highly liquid and widely traded, there is much appeal in using market values. However, for most assets there is a circularity when accountants use market values in financial statements that are in turn used by investors to make trades that determine these market values. If a firm's market value is the sum of the values of its components, using market values on balance sheets and changes in market values on income statements is intuitively appealing. But in the real world of imperfect and incomplete capital markets, a firm's value is not necessarily the sum of the values of its components. Thus, the logic of using market values for assets and liabilities is not so straightforward. Perhaps using verifiable historical costs, providing an independent perspective, is the real advantage that accounting information has over other sources of firm-level information. Financial statements might be considered instrumental variables in assessing the firm's market value.

AN EXAMPLE

Let's consider a hypothetical tradeoff in a simple context. Supposing that a company's accountants could include either last year's actual sales or a prediction of next year's sales in an income statement. The sales amount that is not reported, either predicted or actual, is not measured and is therefore not available to decision makers. Although this is an extreme example, it a useful illustration of the issues.

One may note that sales predictions are not verifiable while actual sales are. Let us suppose that the only information available is a series of predictions. In such as case, year-to-year changes may be the result of either 1) shifts in the underlying level of sales or 2) faulty prediction models. Even normal random fluctuations that are impossible to anticipate hinder the interpretation of changes in predicted sales. Because of this "noise" in the sequence of predicted sales numbers, there is less discipline on the company and its accountants to report accurately. There is no absolute confirming or disconfirming information produced. The potential benefit of accounting information as a confirmation of other reported information, a benefit that has been important but underrated in the past, is sacrificed.

In contrast, actual sales for the past year cannot be used directly by investment decision makers. It is only one of many inputs, and maybe not the most important input, to a prediction model for future sales. But it is a "hard" number, one that can be independently verified. Anyone who makes a prediction of sales can compare that prediction to the actual reported numbers. The reporting of verified actual numbers will

discipline a variety of public predictions related to sales levels.

It is hard to envision a world where no one produces actual sales numbers. But it is not hard to picture a world where some "actual" costs are not disclosed. Let's consider pension costs. In today's financial statements we see only a series of predictions of pension costs, and there is no requirement to reconcile these to subsequent actual payments. As more and more of these "soft" measurements enter into accounting reports, the financial statements become increasingly a set of predictions.

If accountants suddenly gave up their traditional role as reporters and verifiers of history, it is likely that someone else would quickly fill the void. The demand for verifiable information will not go away. There will continue to be a demand for someone to confirm expectations and to adjudicate contract terms. The gradual ceding of this territory by accountants has not yet led to wholesale invasion by others, but eventually this may happen. And there is no guarantee that the "greener pastures" of producing information directly relevant to investment decision makers is an area in which accountants will compete well. At any rate, it is important to realize what accountants are sacrificing to pursue a path of investment-decision relevant financial statements at the expense of verifiable confirming information.

TIMELY INFORMATION

Another aspect of accounting information that is subject of criticism is its timeliness. If the focus is on using accounting information directly to make decisions, it is true that it often arrives too late to be useful. Thus, accountants have tried to make their reports more useful by increasing their timeliness. Even without becoming predictors, accountants can still make financial statements more useful by reporting historical data more quickly than they have in the past. This is already being done in at least two ways: 1) automated closings at the end of each accounting period make information available sooner, and 2) electronic dissemination gets accounting information to users more quickly. Speeding up the preparation of reports has resulted in processing efficiencies for many companies, and automating it has cut down on possible opportunities for gamesmanship. But the basic information is still not available until the end of the accounting period, which may be too late for many decision purposes.

A technologically feasible way to increase timeliness is to have information available continuously. We often call a company's balance sheet a "snapshot" of the company at a point in time, and we select a few times (for example, the end of each quarter) to take a snapshot. But just as video cameras have provided a continuous image of physical activities, computers can provide a continuous image of a company's financial activities. Using "stop action", users could examine a balance sheet for any desired time, not just the points at which a company decides to take and develop a picture.

Critics of continuous reporting point out that some items on a balance sheet are not amenable to continuous updating. For example, management must periodically make judgments on the impairment of assets. However, balance sheet items do not need to be assembled into a complete balance sheet to be useful. Therefore, value can be achieved by continuously updating only those items not requiring periodic judgments and possibly by increasing the frequency at which management updates its judgment on various items.

ACCESS TO DATABASE

One way to accomplish a continuous view of a company is for users to gain access to a portion of a company's database. This is easily done with today's technology. However, it is resisted by the management of most companies. How could this be made more palatable? One way may be to partition a company's database into three parts: 1) protected data, 2) regulated public data, and 3) unregulated public data.

Let's consider each of these three types of data. First, there must be a way for companies to protect the privacy of sensitive data. A part of the database must be strictly off limits to the public. Guaranteeing firewall protection of these data is essential to proceeding with granting public access to other parts of the database.

A second part of the database is a segment that is highly regulated, much the way financial statements are regulated today. Specifications of what to include, how to measure it, and how to format it will make access to this data easy for users. Using XBRL will further ease the use of such data. Decision makers will be able to readily access the data and make comparisons across companies. One could consider this the "core" financial data. It may be data similar to today's financial statements, except that it is continuously available. In addition, it might contain more detailed components of what today are highly summarized numbers. Users would have the ability to select, aggregate, and format summary reports to suit their own purposes.

Finally, the third segment contains information that either 1) is not currently publicly reported in a systematic way or 2) details about currently reported data that are currently lost in the summarization needed to meet standards that make financial reports comparable across companies. Market demand would drive the determination of what to report, at what level of detail, and how to make it available. Companies might include firm-specific or industry-specific data. Much of the data may be physical rather than financial measures. For example, aircraft manufacturers may report order backlogs, primary manufactures may report comparative cost statistics, high tech companies may report technological breakthroughs, and pharmaceutical companies may report results of tests of new drugs. The possibilities are vast.

If reporting evolved to the provision of databases, accountants may have another market opportunity (or it may be undertaken by others). Summarization has always been the domain of accountants. Accountants summarize data before they report it.

However, summarizing has been aimed at producing financial statements that are usable to a wide variety of users, "general purpose" financial statements. Now we suppose that reporting consists of disclosing raw data before summarization. A market is likely to arise for those with expertise in interpreting and summarizing the data. But it won't be summarization into general purpose financial statements. Different users may want different summaries, and summarizers that can provide a menu of types of summaries may be in high demand. Instead of one set of general-purpose financial statements, decision makers may be able to buy statements that accountants have tailored to the decision makers' specific purposes.

NONFINANCIAL DATA

In the past, accountants have focused primarily on data contained in financial statements. By having a section of a company's public database for non-standard information items, the companies can more easily disclose an increased amount of non-financial data. Managers have always used nonfinancial data in their decisions. In recent years management practices such as just-in-time production and total quality management have focused on nonfinancial measures. Yet, nearly all information reported to the public has been financial. If nonfinancial data are useful to managers, should they not also be useful to investors?

Making external financial reports more consistent with internal reports used by managers was advocated as long ago as 1994 by the Jenkins Committee report (AICPA), and proposed FASB statements on consolidations and segment reporting reflect to some extent a desire to report on a basis consistent with management's view. A logical extension of this trend is to report significant nonfinancial data used by management. Trade associations already collect and disclose some such information, and some companies selectively disclose non-financial data. It is possible that systematic reporting of such data, using consistent measurement rules, could benefit both investors and the company.

SUMMARY AND PREDICTIONS

The future will see significant changes in financial reporting. However, the pace of change in the last decade has been slower than expected. Thus, future changes are ikely to continue to be evolutionary, not revolutionary. Although we have not even begun to tap the potential of modern technological (computer) capabilities, change will require more than feasibility. Both demand and supply functions for accounting nformation are driven by people, as well as technology, and the human element is not ret ripe for drastic changes.

Why is change slow in coming? Most importantly, users are not demanding evolutionary changes. In fact, most decision makers are asking for accountants to do

better that which they already do, not to venture into new areas. But current users of accounting information may not completely drive future demand. Consider one set of major users of financial statements, financial analysts. They derive their returns from interpreting information. They have developed an expertise in understanding the current reporting framework, which would not necessarily be useful in a new reporting environment. Further, their efforts would lose value if information they currently develop were freely disclosed by companies. Thus, the demand for changes in information are not likely to come from the main-stream financial analyst community. They may come, instead, from "renegade" financial analysts or other information specialists who see potential opportunities for themselves in a new reporting environment. These forces will have an effect, but it is likely to be a gradual one.

Producers of accounting information, the financial executives from reporting companies, are even less likely to push for dramatic changes in financial reporting. Financial executives seem to routinely oppose even small changes in reporting practices. However, despite opposing changes in external reporting, most financial executives are overseeing huge changes in their internal reporting systems. Where CFOs and controllers only a few years ago focused on preparing and distributing internal financial reports, today many of them oversee Intranet databases from which managers can extract the specific information they need for their decisions. It just a matter of time before these internal changes spawn parallel external reporting changes. In addition, experimentation in financial reporting seems more prevalent among smaller, often technology-based, start-up companies. Such companies probably have more advantage from better and more innovative information dissemination methods than do large old companies. There is more uncertainty to allay and fewer analysts seeking information. Traditional financial statements often fail to capture the significant drivers of success for such companies. If these companies develop successful alternative information dissemination methods, others will follow. However, all these pressures are not the type that are likely to cause revolutionary changes, so changes introduced by information producers are also likely to be introduced gradually.

It is likely that the future will see a gradual opening of access to companies' databases, with significant access still at least a decade away. The core data will be parallel to published financial statements, with only slight expansions into either details underlying the statements or data not currently reported. True database access will remain elusive; core data will continue to be filtered and summarized condensations of the full database. Only a limited amount of management data is likely to be publicly disclosed. Financial information will be routinely available over the Internet, nearly eliminating delays in reporting, but this will continue to be primarily summarized data, so delays needed to summarize the data will still exist.

A major fork in the road for accounting regulators in the near future will be whether to pursue information for investment decisions, making accountants predictors, or to focus on verifiable confirming data, continuing the accountant's role as historians.

Although we seem to be in a period where historians are not valued as highly as predictors, this may not persist. There is great value in the confirming function of accounting. It will be risky for accountants to abandon their role as historians, at which they are very good, to pursue a role as predictors of the future, for which there is no evidence that they have a comparative advantage.

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