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Final report

American Institute of Certified Public Accountants. Special Committee on Assurance Services

AICPA
Special Committee on Assurance Services

Final Report

AICPA Special Committee on Assurance Services — Final Report

The accompanying material is taken from the Special Committee on Assurance Services' report that appears on the AICPA web site (www.aicpa.org/scas).

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Assurance Services

Your marketplace is changing. Multi-billion dollar markets for new CPA services are being created. Investors, creditors, and business managers are swamped with information, yet frustrated about not having the information they need and uncertain about the relevance and reliability of what they use.

CPA firms of all sizes — from small practitioners to very large firms — can help these decision makers by delivering new assurance services.

This web site will tell you what you need to know — whether you're a CPA who wants to *provide* assurance services, a business person or governmental leader who *needs* them, or a professor or student who wants to *learn* about them. You can learn about the information needs of decision makers, how the megatrends in our economy are shaping and reshaping those needs, how to develop and perform new assurance services, and why CPAs will have to compete with non-CPA providers equally ready and willing to improve decision makers' information.

This site was developed by the Special Committee on Assurance Services. The AICPA assigns a high priority to developing new services and has made a commitment to identify additional services and help firms bring them to market.

Following are the major sections of this site and what you can learn there. For an overview of the site, see the Site Map.

Report of the Special Committee on Assurance Services

"How does it affect me?" See the opportunities and the actions needed to realize them. Select the perspective closest to your interests or examine all perspectives as you like Surf the material for its breadth or dive to study items in depth. Review new services and see which apply to you and your firm.

CPAs Discuss Assurance Services

Join the Internet community of your peers who are interested in assurance services. Exchange information and insights. Get answers to your questions.

Assurance Services Site Map

Get an overview of the entire assurance services web site; identify subjects of interest to you; make sure you haven't overlooked anything; and use the hyperlinks to navigate the site.

Ongoing Assurance Service Development

View the structure the AICPA has put in place to continuously identify new assurance services, develop them, and bring them to market.

Produced by the AICPA Special Committee on Assurance Services

Report of the Special Committee on Assurance Services

This website is the Committee's report, presenting the services identified, its findings and recommendations, and the other results of the Committee's two years of research and deliberations. No additional report will be circulated in paper, although website pages can be printed for reading at your leisure.

You can select the level of detail you prefer and perspective you are most interested in. You can, for example, visit —

- An account from the point of view of your function (public practice, CPA in industry, or academic).
- Major themes (e.g., new services, customer focus, competitive environment, information technology).
- Studies and analyses that led to the Committee's conclusions.
- The Committee's recommendations.

How Does It Affect Me?

View the Committee's work from your perspective — as a *customer* of assurance services (industry and government), a *provider* of assurance services (small, medium, or large CPA firm), or a *professor or student* of assurance services.

Major Themes

View the key ideas and themes that influenced the Committee's conclusions and recommendations.

New Assurance Services

The profession's annual accounting and auditing revenue — now standing at about $7 billion — can be doubled or tripled by performing new assurance services. See how you can get your share by improving the quality of information used by decision makers.

Committee's Recommendations

Review the Committee's recommendations directed to various institutions.

About the Committee

Review answers to frequently asked questions about assurance services. Learn about the Committee: its charge, membership, staff, work plan, and outreach activities.

Committee's Studies and Resource Materials

Review the Committee's extensive research reports on screen, print them to read at your leisure, or download them onto your own computer for further analysis. These reports formed the basis for the Committee's findings and recommendations.

Special Committee on Assurance Services

	Robert K. Elliott, *Chair*	George A. Lewis
15	Jay D. Brodish	Patrick J. McDonnell
	Robert L. Bunting	Harold L. Monk, Jr.
	Brian P. Crowley	Donald L. Neebes
	James G. Hooton	Chester P. Sadowski
	Gordon M. Johns	Sandra A. Suran
	William R. Kinney, Jr.	Don M. Pallais,
	Richard B. Lea	*Executive Director*

(The Committee is sometimes referred to as the "Elliott Committee" after its Chair.)

Produced by the AICPA Special Committee on Assurance Services

How Does It Affect Me?

View assurance service opportunities and what you must do to take advantage of them from one of the perspectives described below:

- a customer of the services (industry or government),
- a provider of services (a CPA in a small, medium, or large firm), or
- a professor or student of assurance services.

Use the characteristics below to help you select the perspective that best fits your circumstances.

Industry

- If your role is management (including management accounting or financial accounting) or board member, select the Industry perspective.
- If your role is internal audit, select from the Small CPA Firm, Medium CPA Firm, or Large CPA Firm perspectives according to the descriptions given below.

Government

- If your role is to engage CPAs to provide assurance services to government, select the Industry perspective.
- If your role is to produce assurance services within government (e.g., as an internal auditor or inspector general), select from the Small CPA Firm, Medium CPA Firm, or Large CPA Firm perspectives according to the descriptions given below.

Small CPA Firm

Small CPA firms typically serve small businesses. They typically help clients prepare and organize information although they sometimes examine it. Individual partners have substantial freedom to expand into new service areas. Firms typically don't have substantial resources to develop new types of services and the tools to use.

Medium CPA Firm

Medium firms serve large and small clients. They focus more on attestation-type services than smaller firms do, but sometimes help clients prepare and organize information. They generally have some capacity to develop new services, but generally rely on others to develop tools. Full service firm associations also might find this perspective appropriate.

Large CPA Firm

Large firms serve all types of clients and generally have substantial capacity to conduct their own research and development activities. They are highly structured in approach and business strategy. Their clients generally don't need assistance organizing or summarizing information.

Academic

Professors, students, administrators, and others interested in accounting education and research.

Industry CPA Perspective

As a CPA in industry, you face cost pressures, new sources of competition, a decline in demand for some of your traditional services, and the challenge of increasing your value to the organization you serve. Like all CPAs, you must identify the needs of your customers and find ways to satisfy them. You can do this on your own by expanding your expertise and range of service or in conjunction with CPAs in public practice, based on opportunities developed by the Special Committee on Assurance Services.

All CPAs Must Adapt
You — just like your colleagues in public practice — are affected by the forces rapidly changing the information needs of decision makers; no CPA is exempt.

Forces Transforming the Environment
You can't adapt reliably without understanding how needs for information services are changing, what is changing them, and how they will continue to change.

Threats
GAAP financial reporting is losing decision-information "market share," and new forms of competition are growing. The cost squeeze will continue, making insourcing vs. outsourcing decisions routine.

Opportunities
The opportunities to create value for decision makers by improving information are unprecedented. New needs for information improvement will be met by non-CPAs and software or by CPAs in industry and public practice.

The Range of Assurance Services
As a CPA in industry, you should understand the concept of assurance services. These services suggest opportunities for industry CPAs as well as CPAs in public practice to meet decision makers' needs. There are two related issues: How will the financial statement audit change and what new assurance services will be available?

The AICPA's Role in Future Assurance Services
Learn about the AICPA plans and infrastructure for identifying new assurance services, branding them as CPA services, and education.

All CPAs Must Adapt

Because of potential inroads on their historical functions, CPAs must adapt to the evolving environment and identify what contributions they can make to users of information.

Management accountants have already shown such flexibility by the current intellectual ferment on performance measurement. But those in the information business must give continuing attention to how they can adapt to the forces changing that business. CPAs in industry are affected by the same forces simultaneously eroding the traditional markets for independent audits and presenting new opportunities to improve information for decision making.

CPAs in industry should also have interests in the work of the Committee. The Committee's study of the practice environment for audit/assurance services is closely related to the market for CPA work in industry. In the first place, the prestige of the CPA designation for all CPAs — including those in industry — depends on the economic health of the audit function (which is the basis for the CPA statutes). In the second place, CPAs in industry are among the customers for independent assurers' services. They should have an interest in what new services will be available to them. The services are not mandated by standards or regulations; entities will purchase them based on an understanding of decision makers' information needs.

This section focuses on what the Committee's findings might mean for CPAs in industry. Complete findings are available on other pages of this website.

Forces Transforming the Environment

Several megatrends will change the environment over the next decade, with consequences for the economic functions of all CPAs. Three of the eight the Committee identified are briefly summarized below.

- ***Information technology*** will have the greatest effect.

  It is accelerating *a shift in power from the producer (of goods or services) to the consumer*. Consumers, including internal and external users of corporate information, can communicate with one another, develop common views, and express them jointly with the aid of information technology. Meanwhile producers can proactively learn more about consumers' preferences. Both features help orient producers toward satisfying customers to a greater degree than in the past.

  All forms of *electronic commerce* will grow over the next ten years, and with them will grow associated information challenges — for example, assuring accuracy, authenticating parties, protecting privacy, and creating trust. Ultimately, all buyers and sellers will be affected by this trend.

- New technologies, competition, changes in worker relations, and attempts to control risk are *changing organizational structures and relationships*. More alliances, joint ventures, and temporary organizations will be formed to pursue short-term objectives (e.g., pooling capabilities, such as research, licenses, or technical or market knowledge). A single entity may be involved in intricate alliances with a variety of business partners, some short-term and others of longer durations.

This trend will affect information flows. Short-term organizational structures, for example, can create difficult accounting problems — e.g., the applicability of the entity concept, difficulties in measuring performance and accountability, different meaning for the going-concern assumption, and arms-length transactions being the exception, rather than the rule.

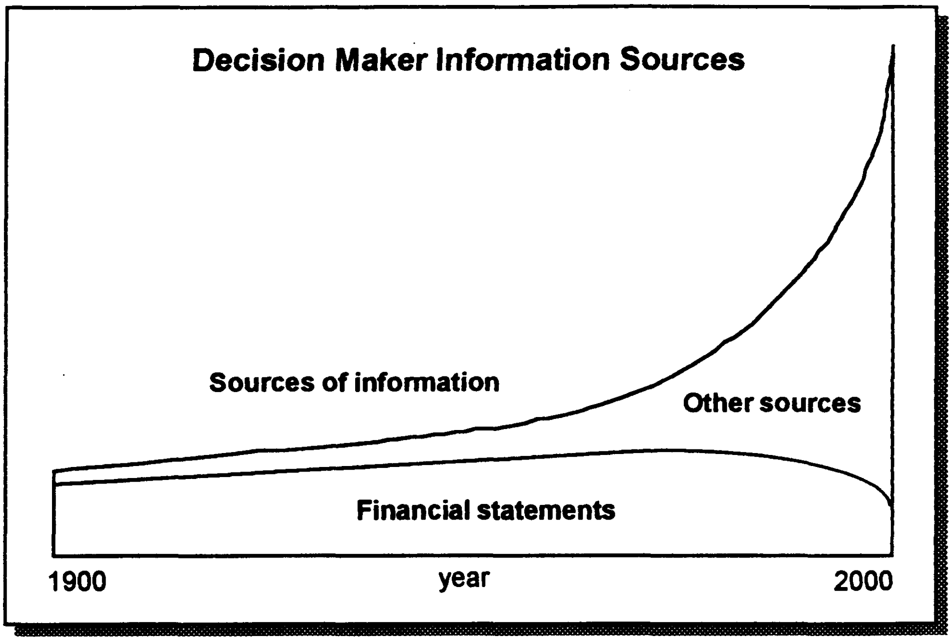
- ***Accountability*** demands (i.e., demands for reckonings owed and provided by one party to another regarding some past or future action) will increase in the next ten years. As society creates new relationships and companies form new ventures, there will be an increasing need for accountability among the parties. Advances in information technology lower the cost of providing reckonings and increase the risks of not providing them, because parties owed accountabilities can communicate and act together more easily. Growing interdependency creates obligations that call for accountability reckonings. Our society's political concept of responsible institutions, extending from the notion of responsible government (i.e., responsible to voters or taxpayers), also contributes, as does the notion that openness is good public relations.

The Committee's trend analysis is given more fully in Megatrends Affecting Future Assurance Services. The influence of information technology is studied in Effect of Information Technology on the Assurance Services Marketplace.

Threats

GAAP Financial Reporting Is Losing Decision-Information Market Share

CPAs in industry are not satisfying their customers for financial reporting if they provide only GAAP financial statements. The decline in the proportion of decision-making information represented by GAAP financial reports is illustrated below:



Investors and creditors use other sources of information, and a number of studies show that they have unmet needs for entity-specific information. Thus GAAP financial statements are losing their relative share of the information market, and the changing mix of information needed to assess modern organizations suggests the share will continue to shrink. The kinds of assets that enable profitable growth are increasingly off-balance-sheet intangibles (such as the asset value of data used to run the business, marketing capabilities, the demand pull of brands, knowledge translatable into new products or services or improved processes, and organizational learning capacity). The significance of off-balance-sheet intangibles is most apparent in the service industries.

Boards of directors and senior managements are requesting information on risks, monitoring business processes, and benchmarking and industry comparisons. Industry CPAs must be involved with such information or leave their customers to some extent unsatisfied and see them turn to others to supply it.

All this does not mean that audits and GAAP financial statements are valueless. They continue to reduce the cost of capital, improve market liquidity, and promote confidence in market integrity. But GAAP financial statements contribute a lower proportion of the value of investor-creditor decision-making information than once they did.

Competition

New forms of competition are going to pressure CPAs in industry.

- ***Product substitution and outside competition in traditional markets.*** Computer software will be performing a greater proportion of internal audit and internal reporting work. Outsourcers will compete with industry accountants and internal auditors for traditional management accounting work.

- ***Competition from nonCPAs within organizations.*** If internal users are dissatisfied with the information supplied by the financial reporting system, they may look to other departments to supply the information decision makers need.

Periodic Paper Reports Will Become Obsolete

Information technology will make it possible for companies to transmit data to on-line users in near real-time. It will increase the capacity of users to process data. And information technology will make it possible for companies to give internal and external users defined, limited views of selected databases.

In such a world, paper historical financial statements will have a much smaller place and less relevance than they do today. Users will be able to select the information they need and format it to suit their intended analyses. "One-size-fits-all" general purpose financial statements cannot meet such specific needs.

Costs

Cost pressures are increasing. CPAs in industry are often under pressure to reduce headcounts. Accountancy is becoming more capital-intensive. Hardware and software costs are heavy even though the cost per unit of processing power is declining. Education is also an growing cost. Litigation costs based on allegations of misleading disclosure are a major threat to independent accountants and to business firms and retard flows of corporate information.

Opportunities

They're Plentiful

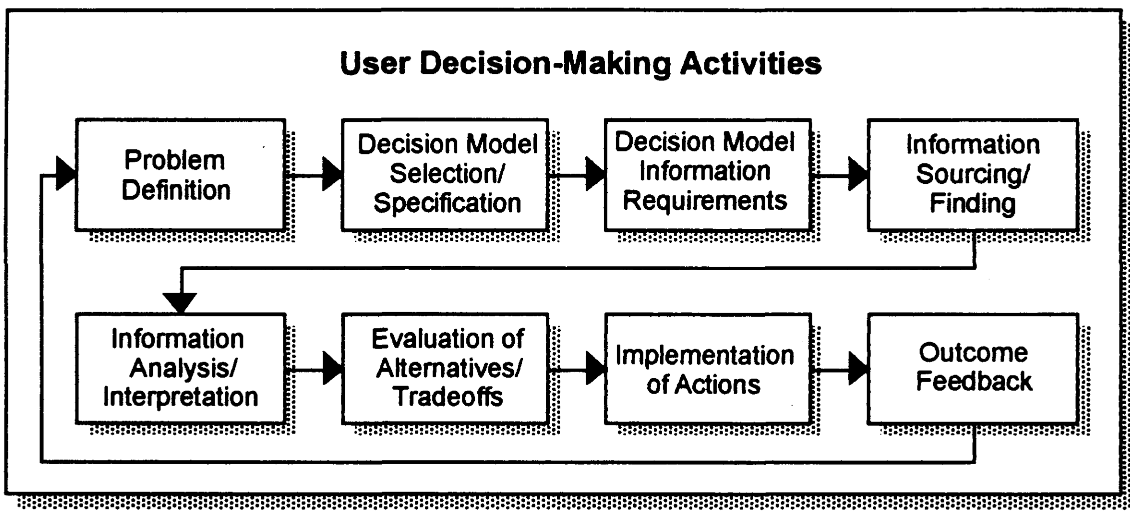
Knowledge work is increasingly becoming the predominant mode of employment and the most assured path to business effectiveness. The greater the role information plays in our economy, the more need for information services. Add to this the increasing role of accountability, and the question is only this: How can the skills and services of CPAs be oriented to take advantage of new market needs for information services?

Capital suppliers and other users of business reports will deploy information technology to enhance their capacity to benefit from information, creating an opportunity for corporate suppliers of information. Corporate information suppliers, in turn, will deploy technologies to improve the reliability of information and, in time, allow on-line users defined, limited access to selected portions of databases.

Electronic commerce offers corporations enormous benefits in efficiency and new pathways to marketing, but the related information problems will have to be solved (e.g., authentication, protecting privacy, and creating trust). This creates an opportunity for CPAs in industry and in public practice to deliver value to customers. Accountants in all fields will develop new tools to facilitate and make possible the new manner of conducting business and recording transactions.

The Customer-Needs Lens

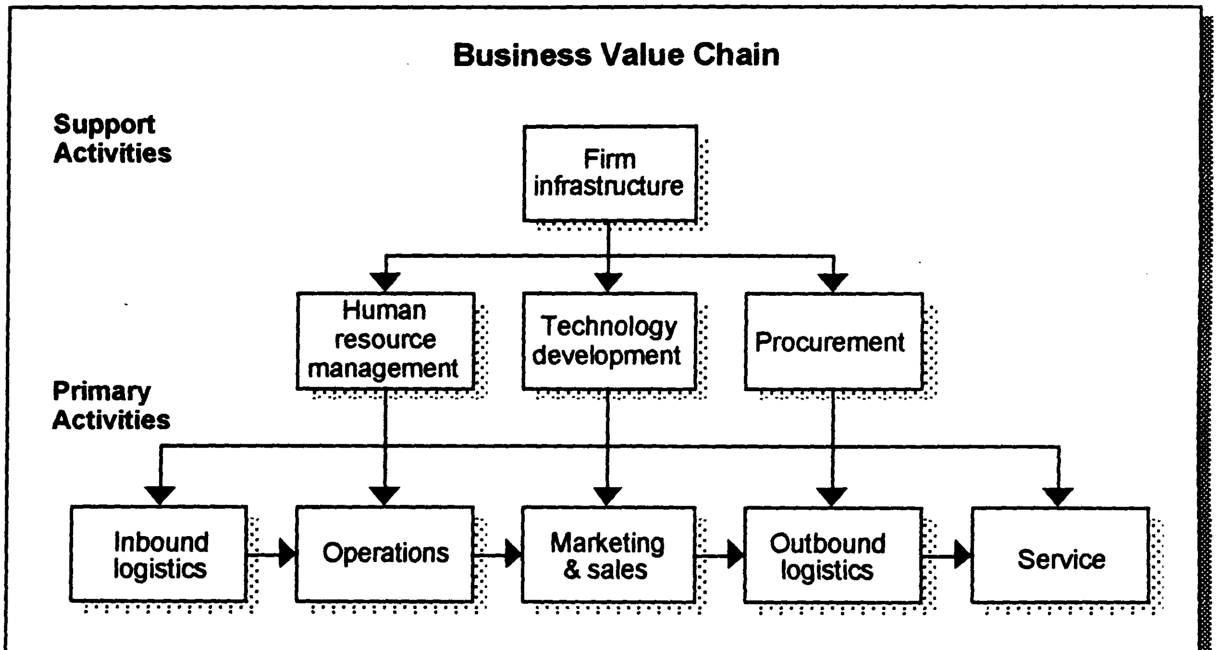
The breadth of the opportunities is seen by focusing on the users of decision-making information and their decision-making processes. The leverage a decision maker gains from information depends on the degree to which all decision-making processes are effective, not just those involved in obtaining information. There are several processes, as the following diagram shows, and each of them is an opportunity for information services that serve decision makers.



The Committee performed research on customers' information needs. Among the findings from the interviews with members of senior management were desires for information on corporate risks, systems quality, and industry norms. A variety of respondents, including senior management, expressed needs for performance measurement information. Investors were interested in the quality of management and the effectiveness of corporate processes and controls. (For more on the unmet information needs that surfaced in the interviews, see the Analysis of Interviews with Potential Assurance Customers.)

The "Value-Chain" Lens

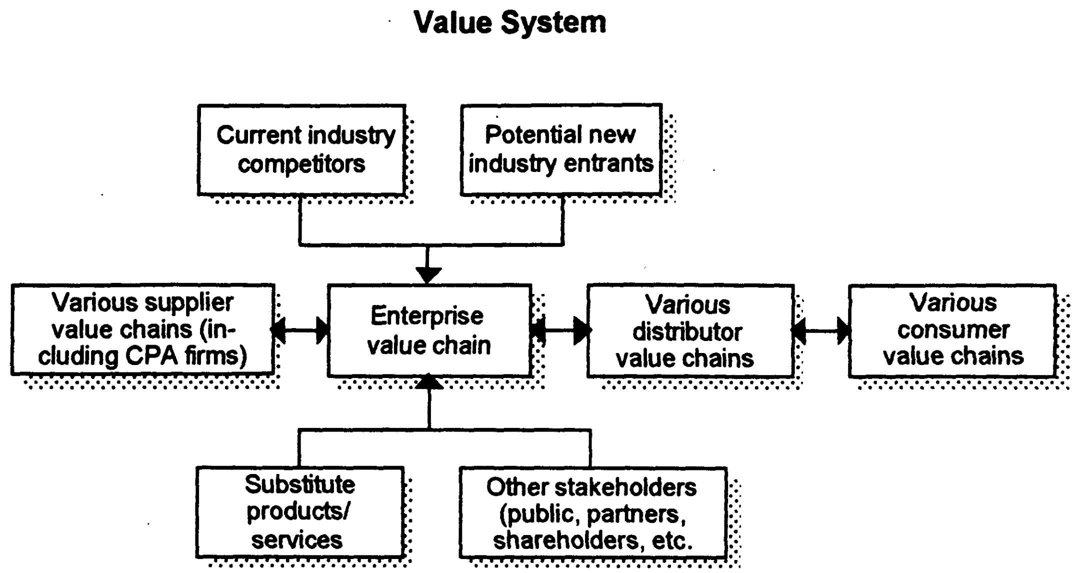
Improving the relevance and reliability of decision-making information benefits the decision-making entity. The "value chain" (figure below) illustrates that the ways in which this benefit can be delivered are increasing. The chain is a concept that organizes an entity's activities into a process of "adding value." "Value" is added by activities that contribute to the revenue-producing capacity of the entity's outputs. Customers who purchase or otherwise pay for (e.g., through taxes) the outputs provide the revenue.



Adapted from Porter, M. E., Figure 2-2, The Generic Value Chain, p. 37.

But the entity can not produce the outputs alone. It is also the customer of other suppliers, has value-adding relationships with its employees, and has value-adding internal processes. All these relationships place the entity in a set of related value chains — those of all other entities that affect the original entity's value creation.

The figure below illustrates a set of multi-entity value chain relationships.



Adapted from Porter, M. E., Figure 2-1, The Value System, p. 35, and Figure 1-1, The Five Competitive Forces that Determine Industry Profitability, p. 5.

Every value-adding link in the chain, those within the entity and between the entity and other entities with which it shares business relationships, is a locus of information flows. Since improved decision-making information yields improved decisions, and improved decisions sooner or later mean more value delivered to customers, the diagram indicates where additional value-adding information services might be supplied. Independent CPAs have to date provided services of a very limited kind to entities' value creation — primarily audits of financial reports to capital suppliers. Industry CPAs have covered a broader scope of enterprise information flows. However, all CPAs are either going to play a bigger role in improving the full set of information flows directly affecting the value chain, or competitors will do so. The need is clear. For more on this concept, see New Assurance Services — Linkages to a Client's Value Chain.

The Committee defined a class of services — assurance services — for CPAs in public practice. CPAs in industry might find them valuable to obtain or identify opportunities in them to increase their own value to their organizations. Processes were also recommended for firms and for the AICPA to identify additional assurance services in the future.

The Range of Assurance Services

Industry CPAs should understand the thrust of the Committee's recommendations for new assurance services, both because they reflect an interpretation of the information marketplace and because they reflect services from independent practitioners that will become available to assist industry CPAs in achieving their enterprises' objectives. Such an understanding begins with the Committee's definition of assurance services:

> Assurance services are independent professional services that improve the quality of information, or its context, for decision makers.

The definition identifies the customer for the service — the decision maker — and the benefit the service provides to the customer — improved quality in decision-making information. There is no limit on the type of information. It can be financial or nonfinancial; can describe or measure performance or conditions; can be about discrete phenomena or about processes or systems (such as internal control or decision models); can be direct (such as information about a product) or indirect (such as information about someone else's assertion about a product); and can be internal or external to the decision maker.

Nor is there a limit on the type of improvement. The assurer can provide improved reliability or improved relevance or improved context. Relevance is improved when an assurer assists a decision maker in improving the identification or use of information or models in making decisions.

The definition encompasses current audit services and enhanced audits as well as proposed new assurance services and assurance services yet to be identified. Individual firms and the AICPA will be identifying additional assurance services over the years.

Future of the Financial Statement Audit

Audits of GAAP financial statements will retain their value for reducing the cost of capital, improving market liquidity, and promoting confidence in market integrity. They will evolve over the next ten years in the two ways described below. Consumers and purchasers of current services should understand their likely evolution.

Procedural Change

The timing and methodology will change, moving toward continuous auditing. Continuous auditing may lead to continuous reporting, at least internally, as a supplement to the annual audit report. Auditors will use electronic sensors, software agents, and computerized audit programming models. Changes in disclosures (e.g., along the lines recommended by the AICPA Special Committee on Financial Reporting, sometimes referred to as the "Jenkins Committee") will modify the representations subject to audit, and auditors will have to cope with clients' increasingly complex business and financial issues.

Adding Value

The value of audits will depend in part on how well several problems are addressed by firms and the AICPA. Users' expectations of the current audit are now in some respects disappointed, and additional guidance, such as is incorporated in the AICPA's recently issued standard on fraud detection, is therefore needed. In addition to fraud detection, additional guidance would be helpful in detecting illegal acts, providing early warning of financial distress and going concern problems, and dealing with risks, uncertainties, and estimates.

The value of the audit will also be influenced by how auditors respond to demands for additional deliverables based on the client-specific knowledge gained during the audit and on the industry and economic knowledge brought to the audit. The auditor could deliver observations to clients on risks and opportunities and strengths and weaknesses.

For the Committee's full analysis of the future of the current audit, see Future of the Financial Statement Audit.

New Assurance Services

The Committee developed business plans for six services, explored several others in abbreviated form, and identified many more through a survey of services already provided by CPA firms. Five of the business-plan services are described below. Ideally, the engagements would provide useful synergy in achieving enterprise goals between the work of industry and independent CPAs. If potential purchasers do not see value in the services, accountants in public practice will not be engaged to perform them. The services would be for voluntary purchase only.

Assurance on Performance Measures

Assess the relevance and reliability of an entity's performance measures for the benefit of senior management and boards of directors. Such measures are relevant if they measure the extent to which the entity has achieved goals. The scope of the service includes nonfinancial measures. Potential applications include assessing the reliability of the information reported from an organization's performance measurement system, assessing the relevance of the organization's performance measures, identifying relevant performance measures for organizations that need them, and helping to design and implement a performance measurement system. For a more complete description, see Business Performance Measurement.

Risk Assessment

Improve the quality of risk information for internal decision makers through independent assessments of the likelihood of adverse events of significant magnitude and quantify the possible magnitudes of the events. Risks are threats that an event or action will adversely affect an organization's ability to achieve its objectives and execute its strategies successfully. The types of risks can be classified as environmental risks, business process and asset risks, and information risks. For a more complete description, see Risk Assessment.

Information Systems Reliability

Assurance that a system is designed and operates in a manner that provides reliable information (other things being equal) or operates according to accepted criteria. Because of the speed of data creation and increased access to them throughout modern, flatter organizations, it is critical that information available for decision making be reliable. Time does not permit the inspection-correction-rework concept. This service focuses on design as the route to reliability because real-time information systems need to avoid errors. For a more complete description, see Information Systems Reliability.

Electronic Commerce

Provide assurance on whether the electronic commerce service providers and tools and systems in use are functioning in accordance with accepted criteria for electronic commerce integrity and security. The service will provide assurance with respect to the integrity and security of electronic transactions, electronic documents, and the supporting systems. The beneficiaries of the assurance service will be all participants in the transactions and the infrastructure for the transactions (e.g., consumers, retailers, credit card issuers, EDI users, network service providers, and software providers). For a more complete description, see Electronic Commerce.

Health Care Performance Measurement

Provide assurance on care providers' performance for the decision-making benefit of care recipients and their representatives (e.g., employers, unions), who, along with the care recipients, are purchasers of the services. There is a widely recognized need to assess the quality of care, partly because the emphasis on cost control has raised fears that patients' health will suffer from a declining level of medical service. For a more complete description, see Health Care Performance Measurement.

Other Services

The Committee recommends several other services, described in Seven Other Service Opportunities. They derive from a list of over 200 services reported in a survey of 21 medium and larger CPA firms, but were not studied at the same level of detail as those above.

The AICPA's Role in Future Assurance Services

Relationship Between CPA-Firm and AICPA Actions

CPA firms will take responsibility for identifying new services as well as for implementing those the AICPA communicates in the form of business plans and are found suitable to individual firms. Firms will also train personnel to learn and understand customers' needs, weigh the suitability of new assurance services, and implement those that are suitable, which may involve acquiring additional competencies. In other cases, the AICPA and firms will work jointly to establish new assurance services, with some mix of AICPA performance guidance, measurement criteria, and accreditation helping to implement and to brand particular services.

An Infrastructure for Identifying Services

Services will be identified by the new Assurance Services Committee (ASC), which has already been created. After identifying a new service and making a preliminary assessment of its promise, the ASC will assign it to a task force for development. Business plans will be developed by the task forces and communicated to the firms, and the task forces will identify what other actions might need to be taken at the AICPA level — for example, accreditation programs, performance guidance, or measurement criteria.

Branding Through Quality Control

Accreditation programs and measurement criteria will assist in branding new assurance services as CPA services. However, their primary purpose is to improve the quality of services and to make them possible. Branding will be a natural but influential consequence of these efforts, just as the AICPA's ethics requirements are designed to assure a level of quality in the public interest, but powerfully contribute to branding.

Education

The AICPA will also assist the transition to new assurance services by additional efforts in education. For example, it will develop additional CPE course materials in information technology and performance auditing.

The complete set of Committee recommendations to the AICPA is available on another web page.

Produced by the AICPA Special Committee on Assurance Services

Small CPA Firm Perspective

To prosper in the future small CPA firms will have to adapt to a changing environment and changing user needs. Small firms can find a wealth of new assurance opportunities in the work of the Special Committee on Assurance Services. The Committee has identified some specific assurance services applicable to small firms, developed models to help identify other opportunities, and provided practice tools to help firms exploit them.

Changing Environment

The environment you practice in is changing. Clients don't value compliance work as much as they used to. Modern businesses of all sizes are changing their processes and, with them, their information needs. The trends you probably already know about might affect you in unexpected ways.

Threats

Small CPA firms face new challenges from many sides, including nonCPAs and the increasing ability of inexpensive software to perform some of the data accumulation, summarization, and reporting that used to represent mainstay services for many small firms. Your firm might not be able to practice in the future the way it did in the past.

Opportunities

Change brings with it a wide range of new opportunities. Assurance services is a broad class of services that are both attractive to clients and consistent with the profession's traditions. Understand how to increase the value of your existing services, deliver new services that the Committee identified, and develop your own new services.

Framework for Identifying Opportunities

Clients are eager for services that improve their operations. Understanding what information is necessary to help them do that provides a framework for identifying new service opportunities.

Action Plan — Firms

There are actions your firm can take *now* to provide new assurance services, provide more value to clients, and reduce your litigation risk.

Action Plan — Individuals

What *you* can do to take advantage of new opportunities.

Action Plan — AICPA

The Committee recommended that the AICPA take action to facilitate migration to new assurance services and help CPAs provide value to clients. Here is a summary.

Changing Environment

The changes in commerce and society that are occurring now and those that are coming will change the way CPAs compete and deliver services. To be prepared to confront these challenges, CPAs need to begin changing their practices today. Small firms that understand the trends can position themselves to take advantage of the changes and develop new markets for assurance services, providing valuable services to clients and others.

Why You Should Care Even if You Don't Do Audits

The services and concepts developed by the Committee don't apply only to auditors. They can be provided by all CPAs in public practice. If, for example, you primarily provide accounting, tax, or consulting services you might find opportunities here, too. And the threats that apply to auditors might very well also apply to you.

Trends You Know About Might Affect You in Unexpected Ways

These factors are expected to have substantial effects on CPAs' practices:

- ***Shifts in power from information producers to information consumers.***
  In general, consumers, aided by advances in information technology, have assumed more power in their relationships with producers. This trend has already evidenced itself in many commercial sectors; and it's expected to apply to professional services as well. Whereas CPA services in the past generally have been characterized by standardized reports and delivery methods, in the future they must be more responsive to users' individual needs.

- ***Advances in information technology.***
  The scope of information technology and its rate of change are redefining key aspects of businesses. Even if your client buys software off the shelf, the way it accesses, uses, and communicates information will change dramatically in the near future. The changes might reduce clients' needs for your services or increase them. But in either case, you need to embrace technology changes.

- ***Users' unmet information needs.***
  Clients (that is, employees, management, and owners) and third-parties have unmet needs for information and assurance. Financial statements don't satisfy all of the valid needs of internal and external decision makers. These needs form the basis of new assurance services.

- ***Users' future needs.***
  Users' information needs are not static; they will change based on economic, social, and regulatory trends. These trends involve how entities interact, new technologies for gathering and communicating information, and changing demographics.

- ***Changes in the competitive landscape.***
  CPAs will expand into other areas. But, competitors from other disciplines will expand by entering traditional CPA markets. Decision makers will not necessarily look to CPAs to fill their needs if other information providers are more amenable to meeting them in the form they prefer. There are many types of nonCPA organizations that will try to step into this role. Information technology will become more sophisticated and will be able to produce some of the information that clients used to engage CPAs to develop.

  CPAs will practice in a more rigorous market environment. The supply and demand equation will change: New service opportunities are unlikely to be mandated by statute. And they won't be restricted to CPAs; nonCPAs will offer similar types of services. CPAs will need to identify their special competencies and competitive advantages to prosper.

The AICPA Responds

The Committee developed a concept for a class of CPA services called *assurance services*. It identified specific assurance services that small CPA firms can deliver.

Assurance services are independent professional services that improve the quality of information, or its context, for decision makers. This is an extension of the audit/attestation tradition intended to respond to the changing environment, develop new markets, and provide additional value to clients and others.

Besides creating the broad concept, the Committee developed six new service concepts, defined seven others, and identified hundreds of other nontraditional services that CPAs currently provide. It has also developed models that CPAs can use in developing new services.

Threats

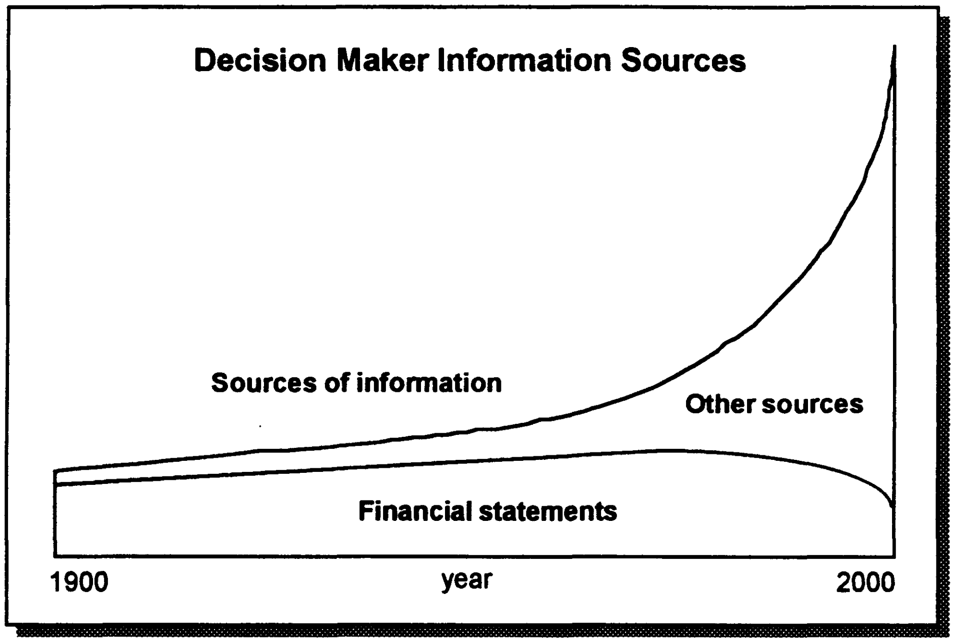
The profession faces threats to its traditional accounting and auditing core functions.

Consumers Gain Power

In the words of consumer trends analyst Daniel Yankelovich, "Consumers have changed from uninformed and passive to informed and adversarial. When there aren't choices consumers will help create them by finding substitute products and services."

The traditional accounting and auditing service is a standardized product intended to serve general needs; it is not customized for the specific user needs. If users are empowered and they are dissatisfied with general-purpose information not responsive to their individual needs, they will find other information suppliers.

Financial Statements Become Less Relevant



Financial statements are still important, but they are becoming a smaller portion of the information used for financial decision-making.

Data indicate that the market for traditional accounting and auditing services is flat, suggesting a mature service. It also suggests that, despite the need for information, users don't value these services as much as they did in the past.

Lenders, historically the major consumer of small-company audits, now frequently settle for lower levels of service. In the future, the market is expected to decline even further as banks increase their use of "credit scoring" as a basis for loans. They may want customized financial presentations and customized professional services in place of the one-size-fits-all model used in the past. These issues are more fully discussed in the Future of the Financial Statement Audit.

The market for audits for governmental units and nonprofits is different. That segment continues to grow because of (1) the regulatory mandate for audits in this area and (2) the nature of the service, which is customized for the party (the government) using it.

Competitive Pressures Mount

The services that CPAs have provided and will provide will come under increasing pressure from competitors and substitutes.

- Price competition from other CPAs has been intense and is unlikely to abate.

- New types of competitors, not bound by standards or limitations imposed on CPAs, will try to expand their services by entering some of the areas traditionally served by CPAs. The new competitors might be computer service organizations, investment firms, banks, other financial service organizations, data base services, or other information providers. Some may provide these services free or inexpensively to create markets for other services they provide.

- More sophisticated software will substitute for professional involvement at some lower levels of service. For example, tax preparation software already has eroded the 1040 preparation service and accounting software has made inroads on write-up and compilation services. This trend is expected to continue as the software is able to do more and becomes more user-friendly.

- Some future services that CPAs expect to get into will be contested by nonregulated competitors.

CPAs Need New Competencies

Existing competencies in the profession are likely to be inadequate for the challenges ahead. The profession's evolution to more value-added services will be inhibited if CPAs and new entrants into the profession don't have the competencies that will be required for the future. For example, CPAs will need substantial competence in new information technology applications, such as electronic data interchange, that will become commonplace even for small clients and using software to extract and analyze important information from computerized records.

Opportunities

The Committee identified a wide range of opportunities for CPAs to provide more value-added services. Three principal ways to provide more value to clients are discussed here:

- Increasing the Value of Existing Services.
- Specific Services Developed by the Committee.
- Designing Your Own Services.

The Committee looked at ways to expand the market and concluded that assurance services are particularly attractive because they combine the CPA's traditional strengths and emerging client needs.

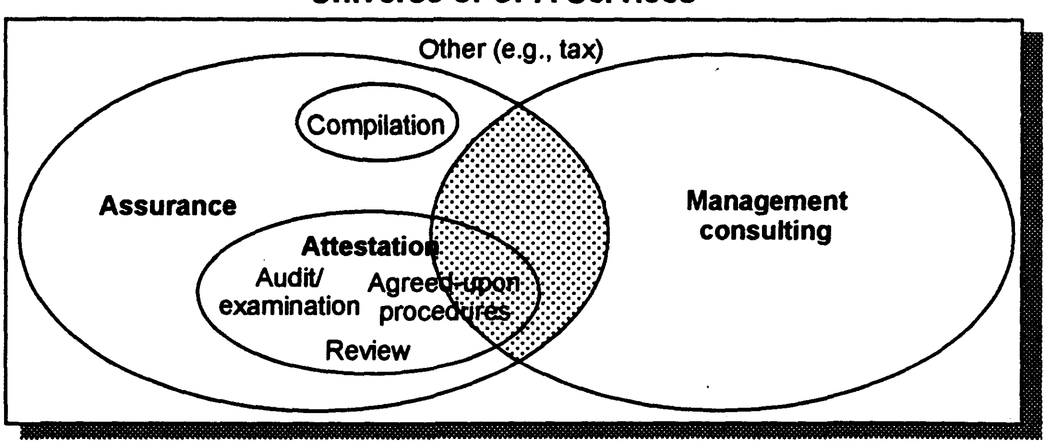
What Are Assurance Services?

Assurance services are independent professional services that improve the quality of information, or its context, for decision makers. The definition, which is developed in more detail in a separate section, involves the following aspects:

- *Independence* is central to the trust users place in CPAs.
- *Professional services* involve the CPA's professional judgment — an element that cannot be replaced by software or duplicated by nonprofessional competitors.
- *Quality* can refer to either reliability or relevance of information.
- *Information* can be financial or nonfinancial, historical or prospective, discrete data or systems, internal or external.
- *Context* is the way the information is presented or the decision model in which it is used.
- *Decision makers* are the users of the information; the service is designed to be valuable to them in meeting their needs.

Assurance services is a broad concept that includes audit and attestation services. It is distinct from consulting (although there can be similarities) because it focuses primarily on improving information rather than providing advice or installing systems.

Universe of CPA Services



The AICPA Code of Professional Conduct applies to the provision of assurance services. Rule 201 requires competence, due professional care, planning and supervision, and sufficient data. No specific performance or reporting standards have been developed for assurance services, except when a service involves attestation, audit, review, or compilation services, for which specific standards already exist. Assurance services are not subject to peer review, except for the specific services just mentioned.

Unlike audit, compilation, and review services, assurance services don't need to involve financial statements. Unlike attestation services, assurance services don't necessarily involve a client's written assertion or the CPA's written report on its reliability.

A CPA doesn't have to be the auditor of the entity to provide assurance services.

How You Can Move into Assurance Services

CPAs can leverage the following factors to develop markets for assurance services:

- ***Independence.***
  CPAs are unique in that their professional standards that require independence. Users value this characteristic of the profession. The Committee did not develop new independence rules for assurance services, but does provide guidance on how the concept might be applied to assurance services.

- ***Financial reporting and controls.***
  Although new services don't necessarily involve financial statements or internal control, the CPA's knowledge of these topics is helpful in designing and delivering services for which there are no standards or rulebooks. The CPA can analogize from reporting or controls familiar models.

- ***Business knowledge.***
  The CPA's experience often imbues him or her with a broad knowledge of business and familiarity with issues that other clients have dealt with. This knowledge provides the perspective to perform additional services.

- ***Knowledge of the client's business.***
  Knowledge of the client's operations, goals, and philosophy is helpful in designing and delivering assurance services. Most CPAs for small businesses have deep knowledge of their clients' businesses and their needs that can serve as the basis for new service identification.

- ***Quality control.***
  CPAs in public practice operate in firms that have established quality control systems. Although assurance services are not peer reviewed (unless they are also the types of services already subject to peer review) the quality-control philosophy

mechanisms in place are likely to permeate the firms' environment, improve the services, and provide value to users.

Through focus groups and interviews the Committee identified several other factors that clients value in engaging CPAs to provide enhanced services. Concentrating on specific elements — involving client interaction, knowledge and skills, and personal characteristics — that clients most value can help the CPA gain permission to provide additional services.

Increase the Value of Existing Services

Clients will still need audits, reviews, and compilations. However, they will look at these services as commodities unless the CPA provides value in addition to the compliance work. Clients will want additional analysis and interpretation to help them compete in their markets or tell them more about themselves than they already know. CPAs can add value by providing this type of information.

CPAs who traditionally focused on summarizing and correcting client data will find markets for those services shrinking and less profitable. CPAs can, instead, concentrate on helping clients determine what data to accumulate and turning the data into high-quality information to use as a basis for decision making.

Clients will face increasingly complex business and financial issues, such as temporary alliances, electronic commerce, and new accountability demands. Services will have to evolve to address these issues and provide the assurance clients need.

Some users, such as lenders, who demanded audits in the past will prefer more customized information. This can lead to a decreased demand for standardized financial statement services, but also to increased use of reports on elements, items, or accounts; prescribed forms; and agreed-upon procedures engagements.

An important opportunity for CPAs of small businesses is developing information to measure meaningful data that is not captured in financial reporting. For example, measuring performance against nonfinancial goals is a natural outgrowth of a financial statement service.

Clients will encounter overwhelming amounts of information with no clear guidance as to which information to use in making decisions. A CPA can improve by helping clients determine what is relevant.

Specific Services the Committee Developed

The Committee developed specific assurance services that CPAs can deliver. Not every service is right for every firm. Some might be inconsistent with a firm's strategy, client base, or competencies. But most firms will find some opportunities or ideas for other services in this list.

The following services are described more fully in separate sections. Practitioners Publishing Company has developed practice aids to help CPAs provide the services. The estimated potential markets for each are very large.

Business Performance Measurement. Many small businesses lack meaningful ways to help them track results. Financial statements are often too general and the clients lack the sophistication to create or track their own meaningful measures. Services on performance measures provide assurance that an entity has relevant and reliable measures for assessing the extent to which it has achieved its goals and objectives. This service can add value for smaller entities by helping them identify relevant performance measures and establishing systems for their capture. The service can be expanded to incorporate comparison to industry norms or best practices.

Comprehensive Risk Assessments. Many decision makers ranked unidentified or uncontrolled risks among their biggest concerns. Services on risk assessments provide assurance on the identification of risks that could affect the entity's ability to achieve its goals or the procedures in place to mitigate them. The CPA can provide an objective and comprehensive assessment of the client's risks. Many smaller entities have never formalized an approach to risk identification. Others simply lack the ability or perspective to identify the risks they face or to implement strategies to deal with them.

ElderCare Plus. ElderCare Plus is a service that provides assurance to adult children regarding care for their elderly parents (or others). The CPA provides assurance that specified goals are being met by various caregivers, financial matters are under control, or other matters specified by adult children are adequately attended to. Some CPA firms already offer a similar service, but many of them and the profession as a whole have not recognized the size and attractiveness of the market for this service. The Committee's research in this area suggests that a large potential market exists. Many prospective clients are already tax or financial planning clients. Small CPA firms may already have strong natural advantages in providing this service.

The Committee identified the following additional services that might not fit many small firms' practices. Nonetheless, some small firms might find them attractive opportunities. The Committee has not developed specific practice aids for these services, although firms might find them available through other sources or adapt existing practice aids.

Information Systems Reliability Assurance. The information used to make operating decisions often does not come out of the financial reporting system. While auditors consider the internal control over financial reporting, they generally don't review the separate systems that produce nonfinancial or operating data. Systems reliability services provide an assessment of the controls that ensure the reliability of these data.

Health Care Performance Measurement Assurance. Employers and others are demanding assurance that their HMOs and other health care providers deliver effective health care. There is an enormous public interest in this area, but there is a lack of meaningful measurement criteria, and when providers do report data they are rarely audited independently. The AICPA is currently working on identifying and developing measurement and reporting criteria and a performance model. When the criteria are complete, small CPA firms can provide this service for individual physicians, clinics, or nursing homes.

Electronic Commerce Assurance. The volume of business conducted electronically is growing rapidly: From business-to-business electronic links to individuals who use credit cards to purchase goods over the Internet. Electronic commerce services provide assurance about the integrity and security of data transmitted electronically. The profession is currently developing measurement criteria to serve as the basis for this service. Small clients might need this service if they supply large retailers (such as Wal-Mart) and are part of their electronic data interchange systems or if they sell merchandise to consumers over the Internet.

Seven other opportunities were identified, but not fully developed. They are:
- Mergers and acquisitions.
- Policy compliance.
- Outsourced internal auditing.
- ISO 9000.
- Trading partner accountability.
- AIMR compliance.
- World wide web assertions.

The Committee conducted a survey that identified hundreds of additional services that CPA firms are currently providing. This list can serve as a springboard for identifying other opportunities.

Design Your Own Services

The Special Committee on Assurance Services created a service development model that CPA firms can use to identify and design their own services. It lists strategic and tactical factors to consider in entering new markets.

New service opportunities arise from the existence of three factors:
- A client need.
- A CPA who can fill the need.
- The perception that the CPA's service is worth more than it costs.

Client needs can be determined through formal or informal interviews or observation. The Committee developed a checklist that can be used in client discussions. It also interviewed decision makers as part of its research, which CPAs can use to suggest possible client needs.

Deciding whether to enter a market involves balancing potential costs and benefits. The benefits are based on the market's size and overall attractiveness (for example, profitability, growth, and consistency with the firm's strategy). The costs might involve initial inefficiencies, costs to acquire specific competencies, and risks. The firm also has to consider whether it has a competitive advantage in entering the market.

The goal of the service is to provide value to the client. It is identified by analyzing customer needs and the CPA's competence. The service goal implies an appropriate deliverable, such as a report. The deliverable must be supported by the procedures applied. When the service is not subject to general purpose reporting standards, it is particularly important that the client's needs are considered in creating the goal and again when the deliverable is produced. The feedback is important in making sure that the service meets the client's needs and in refining the service for the future.

Pricing the service should take into account the value established. Although many firms price their services based on hours expended, often the amount of time spent doesn't correlate with the benefit perceived by the client.

Framework for Identifying Opportunities

The value of the CPA's service derives from how the user benefits from it. That is, it is valuable if it helps the decision maker achieve his or her objectives or deliver more value to customers.

The new assurance services considerably expand the CPA's role by involving the practitioner in a much wider range of elements. The broader set of —

- ***Risks*** includes risks at both the enterprise and activity levels, such as economy, industry, environmental, competition, customer, supplier, employee, operations, and information risks.

- ***Performance measures*** includes firm-wide financial and nonfinancial measures, measures at the activity level, and the translation of firm-wide measures into key measures at the activity level. Data include financial, nonfinancial, historical, and prospective information.

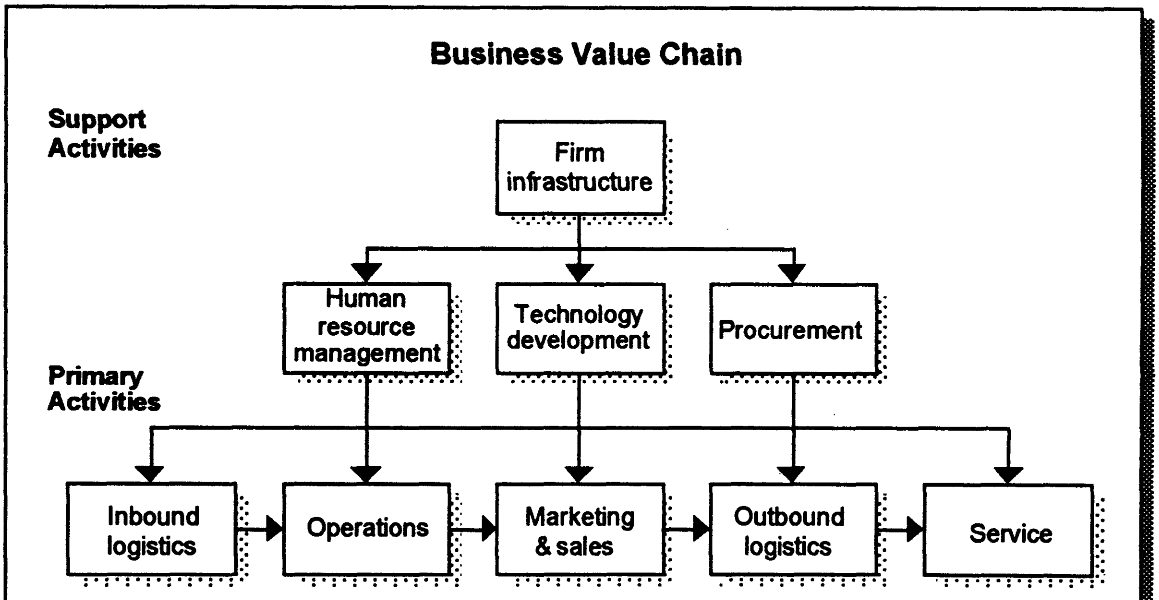
- ***Information systems*** includes all systems that are involved in the planning and control of value-creating activities.

- ***Stakeholders*** includes other management and employees, suppliers, customers, and partners.

The demand for these new assurance services can be stimulated by demonstrating that they would eventually lead to greater value added for a client's own customers and, hence, greater profits for itself.

Linkages to a Client's Business Value Chain, expands this concept further and discusses how the CPA can provide value by helping the client increase value to its own customers. A CPA who internalizes this (or an equivalent) model will be able to see his or her clients in a way that leads to the identification of many opportunities for valuable assurance and consulting services.

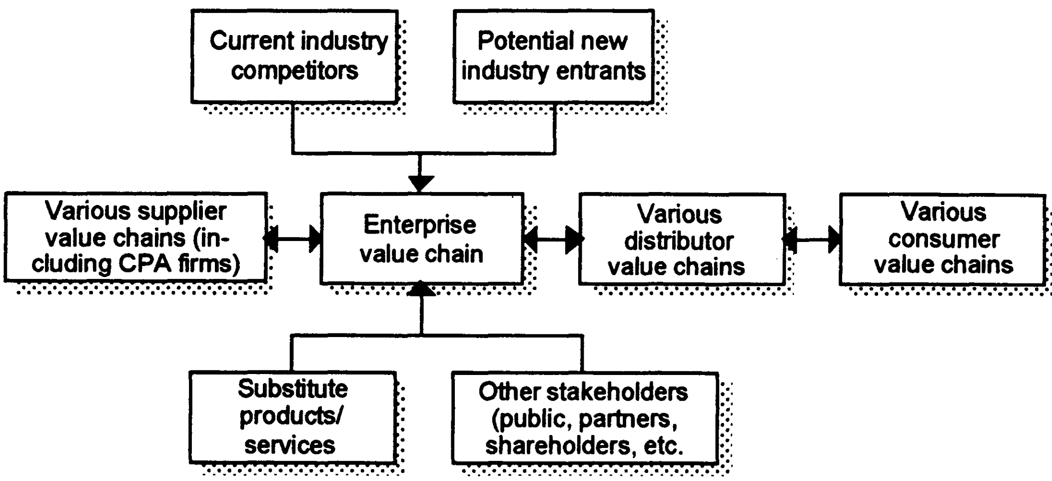
Value to a customer is the amount a customer is willing to pay (revenue) for a product or service provided by a business enterprise. In order to bring value to customers, business enterprises engage in a set of value-creating "primary" and "support" activities identified in the figure below. In the long run, an enterprise is successful to the extent that the total value it creates for customers in all of its value-creating activities exceeds the total costs of all resources consumed by those same activities.



Adapted from Porter, M. E., Figure 2-2, The Generic Value Chain, p. 37.

As shown in the next figure, an individual business enterprise operates within a larger value system involving other firms and individuals (including CPA firms), all of which influence the value ultimately delivered to the consumer.

Value System



Adapted from Porter, M. E., Figure 2-1, The Value System, p. 35, and Figure 1-1, The Five Competitive Forces that Determine Industry Profitability, p. 5.

The CPA's traditional role in creating value has been limited. It has focused on a narrow set of risks (those that affect misstatements in financial statements), a narrow set of performance measures (GAAP), a narrow set of information systems (internal historical financial transaction-based systems), and a narrow set of stakeholders (top management, investors, and creditors). This model reveals many additional opportunities to assist the client to create value through better information and information systems.

Action Plan — Firms

Individual firms can take the following actions to begin to take advantage of the opportunities identified by the Committee.

Adopt a Customer Focus

You should understand the client's stated and latent needs for improved information for decision-making. Those needs are best understood by considering the client's operations, goals, and philosophy. Information that might be critical to achievement of objectives might not be routinely created within the entity and you can provide a valuable service by providing it. A checklist is a useful tool for determining the client's critical, but unmet, information needs.

Regular communications with clients can help you better understand their needs and whether you're meeting them adequately. An inexpensive way to establish a feedback loop is to conduct interviews with clients to monitor the effectiveness of the relationship. The interviews are best conducted by someone unconnected to the firm or by senior-level firm personnel not involved with that client. Another approach is to conduct a discussion group with clients to discover ways to improve current services and generate ideas for new ones. The Committee's focus group discussion guide can be a helpful aid.

Add Value to Existing Services

The firm can improve the value of its existing financial-statement services by:

- ***Rethinking the service deliverable*** as more than simply a report on the financial statements. A more valuable deliverable is a customized set of communications based on the knowledge gained on the engagement regarding the client's strengths and weaknesses and the opportunities and threats it faces.

- ***Improving fraud detection.*** Your staff might need additional training in areas such as information technology, business processes, and business risk to better detect fraud and understand its ramifications.

- ***Improving the consideration of risks and uncertainties.*** Your staff might need additional training to understand and interpret reasonableness of assumptions, the processes used to develop estimates, and the interpretation of future risks. Firms might consider purchasing or developing additional practice aids for considering risks and uncertainties.

- ***Focusing on systems.*** As commerce becomes more electronically based, audits will need to focus on the systems that create, capture, summarize, and report information. Determining that the systems are reliable will be a more effective auditing approach than after-the-fact checking.

- ***Considering users' changing needs.*** Understand the "credit scoring" models used by lenders for small loans. Lenders' use of these models might reduce the demand for audits or reviews of financial statements, but might create a need for agreed-upon procedures or other services on elements, items, or accounts of a financial statement.

Branch Out into New Services

The Committee identified new services that CPAs can begin delivering. Practitioners Publishing Company has developed practice aids for the following services:

- Performance measures.
- Risk assessments.

- ElderCare Plus.

The Committee also identified additional services that you might consider offering. It did not fully develop these services. But CPA firms are already delivering most or all of them.

- Mergers and acquisitions.
- Policy compliance.
- Outsourced internal auditing.
- ISO 9000.
- Trading partner accountability.
- AIMR compliance.
- World-Wide Web assertions.

Firms can develop their own services based on demonstrated customer needs. The Committee created a model for identifying needs and turning them into services.

Take Steps to Reduce Litigation Risk

No service is free from litigation risk. However, the risk need not be unbearable. The Committee studied the factors that influence the risk of litigation. Although the risk cannot be eliminated, it can be reduced by taking actions such as the following:

- Including cautionary language in the CPA's report or other output.

- Identifying and contracting with the users of the service. This approach can both limit the claims to an agreed-upon level and limit the exposure to lawsuits from other parties.

- Using alternative dispute resolution techniques.

Bring New Skills to Bear

You can increase your ability to provide new services by bringing new skills to bear. Five major imperatives stand out regarding the competencies needed for the future:

- ***Customer focus.*** Assurance services are intended to provide a benefit to decision makers. Adopting a customer focus requires that you gain a better understanding of users' decision processes and how information enters into those processes.

- ***Movement up the information value chain.*** To provide more value to decision makers you should focus less on summarizing data and more on deciding what information to accumulate and transforming the information into knowledge that effectively drives decision processes.

- ***Information technology.*** Profound changes occurring in information technology will shape virtually all aspects of assurance services. Even the smallest clients will be forced to use sophisticated information technology to deal with their customers and suppliers. You need to embrace technology in all its complex dimensions. Begin using it now, if you haven't already. For example, provide e-mail contacts for clients for rapid communications. Allow clients and other influential parties, such as banks or law firms, to participate in bulletin boards on your local area network (LAN), access firm communications electronically, and dialog with the firm on issues such as tax law or other matters that affect the clients' businesses.

- ***Pace of change and complexity.*** The environment will be one of rapid change and increasing complexity. You need to invest in life-long learning skills to stay up to date and effective.

- ***Competitiveness.*** Growth in new services will depend less on franchise/regulation and more on market forces. You need to be able to identify client needs rapidly and respond to them in a cost-effective manner.

You may have to reach out to acquire needed competencies. In some cases, you might have to hire nonCPAs to complement your in-house talent for certain types of engagements. You might have to align with nonCPA firms to acquire needed technology or other skills or bring sufficient resources to bear on client problems. You might coordinate a joint effort by different types of professionals to provide useful information for decision makers.

Action Plan — Individuals

There are many actions individual CPAs can take to take advantage of new assurance service opportunities.

- Every member of the CPA firm — from receptionist to senior partner — has a role to play in delivering additional assurance services. Be aware of all the services your firm offers and when they are appropriate.

- Be a good listener. You can only diagnose the client's problems by hearing them out.

- Be proactive. Don't wait for clients to come to you with problems. Seek out and understand your clients problems, goals, and philosophy. This is best done at the client's place of business.

- Develop a wide network of contacts. This provides a source of referrals and allows you to be helpful to your client when it has problems outside your area of expertise.

- Be willing to take some risks. Many new assurance opportunities are in areas in which there are no standards, rulebooks, or right answers. These are the areas that often provide high value to clients in which you can leverage your professional judgment.

- Commit yourself to life-long self study. The rate of change in commerce will require continuous learning. Enhanced competencies will come about through your willingness to stay abreast of new developments and learn first hand. Use the Committee's list of future competencies as a starting point.

- Use the CPAs Discuss Assurance Services portion of the AICPA's Assurance Services website to locate CPAs with concerns similar to yours. Help create communities of interest to share market ideas and expertise.

Action Plan — AICPA

The Committee's recommendations to the AICPA include actions it believes the Institute should take to help its members deal effectively with change and offer new assurance services. The recommendations that might affect small firms are summarized as follows:

- Identification and delivery of new services.
  - Assurance Services Committee.
  - Service development task forces.
  - Creating and distributing guidance.
- Customer orientation.
- Information technology.
  - Increasing competencies within the AICPA.
  - Competencies within the profession.
  - Monitoring.
- Renewing and extending the audit service.
- Standard-setting process for audits and other assurance services.
- Monitoring competencies.
- Legal and regulatory issues.
  - Ownership and capital structure of CPA firms.
  - Litigation risk.
  - Location.
- Communications and publications.

Medium CPA Firm Perspective

In recent years, the middle tier of CPA firms has been dramatically altered by mergers, acquisitions, and even a few failures. This tumult has been accompanied, if not caused, by unrelenting competition from both large firms (with their greater resources) and small firms (with their lower cost structures). Most medium firms that have survived and prospered have identified and exploited market niches involving industry or functional specialization. The Special Committee on Assurance Services has identified numerous opportunities for new assurance services that will provide medium firms with many new strategic niching possibilities.

Changing Environment

Major trends will dramatically alter the CPA's role in information used for decision making. Modern businesses of all sizes are changing their processes, which creates new information needs for managers, employees, and others. Fundamental changes in society are also changing individuals' needs for information.

Threats

CPAs will have to compete in high-technology, non-regulated markets for assurance services against a variety of new competitors.

Opportunities

Abundant opportunities exist for CPAs to expand assurance services to new types of information used by a broad range of decision makers.

Framework for Identifying Opportunities

CPAs need a "business model" for identifying information needs of their clients and developing opportunities for new assurance services.

Action Plan — Firms

To take advantage of the new opportunities, firms need to adopt a customer focus, revitalize current services, extend services to new areas, reduce litigation risk, and strengthen competencies.

Action Plan — Individuals

Individual CPAs need to strengthen competencies, adopt a commitment to lifelong learning, and seek accreditation, when appropriate.

Action Plan – AICPA

The AICPA needs to support the development of new services (including related measurement criteria and assurance tools), expand CPE offerings, expand accreditation of specialists, and put in place a market-based technology infrastructure.

Changing Environment

Rapid changes taking place in commerce and society will lead to dramatic changes in the needs and demands of decision makers for information and related assurance. These changes will affect businesses large and small, as well as their managers, owners, and creditors. In Megatrends Affecting Future Assurance Services and Effect of Information Technology on the Assurance Services Marketplace, the Committee identifies new information needs that are arising because of—

- ***Changes in information technology.*** The scope of information technology and its rate of change are redefining key aspects of businesses and other organizations, including organizational structures; products and services; internal processes for acquiring, converting, delivering products and services; and relationships among organizations, consumers, assurers, etc. Although some of these changes may start with large companies, many will originate with smaller enterprises. In fact, technology can level the playing field for large and small companies. These changes will have profound effects on the needs of decision makers for new types of information and related assurance.

- ***Increased demands for accountability.*** Accountability is the reckoning owed and provided by one party to another regarding some past or future action. As society creates new relationships and companies form new ventures, there is an increasing need for accountability among parties. Advances in information technology lower the cost of providing accountability; the risks of not getting it are great.

- ***Changes in composition of capital suppliers.*** Many individuals are entering the stock market directly or indirectly because of low returns offered by insured institutions or because of shifts in the types of retirement plans in use. These individuals will have future needs for timely information similar to needs of institutional investors that are presently being met by public companies.

- ***Changes in the age distribution of the population.*** The population of the United States is aging. By the year 2000 it is estimated that 16.6 million people in the United States will be 75 years of age or older and that approximately 4.3 million will be 85 or older. Wealth controlled by the over-65 age group already amounts to more than $11 trillion. The elderly and their concerned family members will have needs for information and assurance regarding the quality of care the elderly are receiving from a broad range of care givers. The elderly will also be very concerned about the maintenance of their capital.

- ***Changes in organizational structures.*** New technologies, competition, changes in worker relations, and attempts to control risk have led to the creation of new organizational structures and relationships. There will be more alliances, joint ventures, and temporary organizations. Information technology enables employees to work away from the office. Work has become a 24-hour proposition and is conducted in any location. All of these changes lead to new information needs.

- ***Globalization of supplier, consumer, and capital markets.*** There will be increasing international trade and cross-border activities. Companies of all sizes will be affected, if not directly, then indirectly (e.g., by foreign suppliers, customers, technologies, and/or competitors). Trade agreements involving NAFTA and the World Trade Organization have increased cross-border trading. Equity markets have become internationalized. There will be a need for international accountabilities.

- ***Education.*** Educational achievement in the United States continues to lag behind other developed countries, as evidenced by students' math and science scores. Consequently, the accountability of educational institutions will receive increasing attention.

The above trends signal opportunities for the profession at a critical juncture in its evolution.

Threats

During the last decade, several "danger signs" have appeared relative to the practice of auditing:

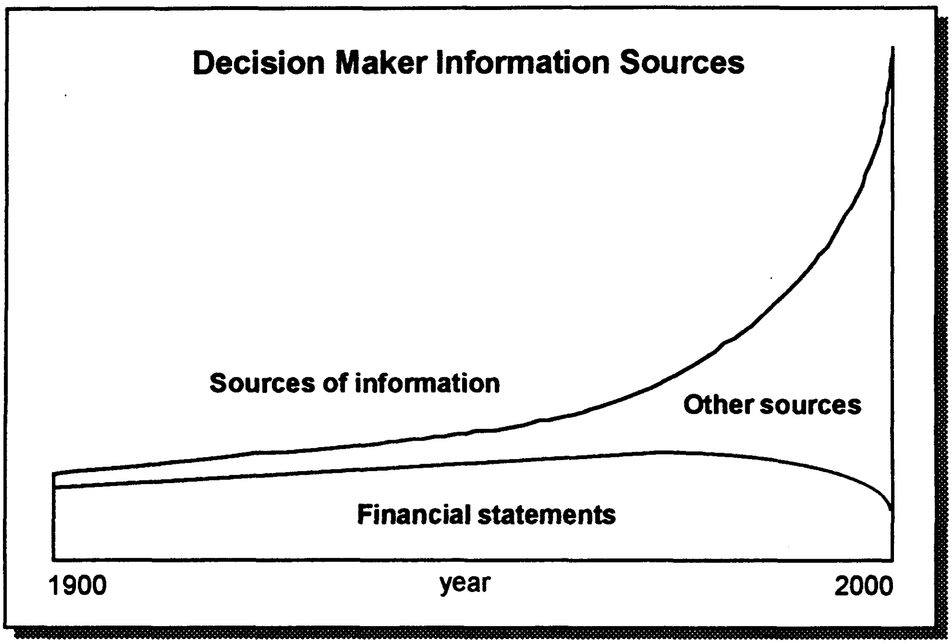
- ***Market saturation.*** The total number of enterprises needing accounting and auditing services is stagnant (new formations being offset by consolidations and failures). As a result, total U.S. accounting and auditing revenues have been flat for the last seven years.

- ***Litigation risk.*** The explosion in litigation during the last 15 years includes much meritless litigation, but it also reflects, in part, consumer dissatisfaction with the current audit product.

- ***Technology substitution.*** Many tasks formerly performed by CPAs have become automated. Software is becoming ever "smarter" and will continue to substitute for labor in the audit process.

- ***Lower attractiveness to new talent.*** Prospective new entrants are not eager to enter a "no growth" profession that is plagued with litigation.

- ***Mass customization.*** Consumers are learning to expect products and services that are tailored to their individual needs. At some point, they will refuse to accept our profession's one-size-fits-all business reporting/audit opinion model.



- *Loss of decision-information market share*. As shown in the figure above, financial statements — which CPAs prepare, audit, review, and/or compile — are providing a smaller and smaller proportion of the information used by investors and other decision makers.

The above danger signs are subsumed in a broader set of threats facing the profession in the years ahead. In Megatrends Affecting Future Assurance Services and Effect of Information Technology on the Assurance Services Marketplace, the Committee identified these major threats:

- ***New paradigm.*** Information technology (IT) is changing the paradigm for users to access information and to obtain assurance. Paper copies of financial statements and an accompanying audit report will be replaced by access to data base systems and continuous assurance regarding system reliability. IT is also leading to a power shift from producers to consumers. Consumers can now more easily make known their individual needs and demands for products and services.

- *New competitors.* CPAs will have to compete with others in a non-regulated market for information and assurance. Potential competitors may have advantages in terms of availability of capital, competencies in technology, and competencies in information management.

- *New competencies.* Existing competencies in the profession might not be adequate for the delivery of new assurance services during the next decade. For example, CPAs will need substantial competencies in new information technologies that their clients will be putting in place.

- *Self-imposed threats.* The profession presently lacks the nimbleness necessary to consistently seize new assurance service opportunities. Reaction time is slowed by the profession's tradition of having standards, rules, and regulations in place before pursuing new opportunities. Presently, the cycle time for standard setting processes is too long to allow proper reaction to opportunities. In addition, new opportunities are not aggressively pursued because of a current mindset that focuses narrowly on producing standard services rather than on satisfying the needs of decision makers.

Opportunities

Abundant opportunities exist for medium firms to expand assurance services to new types of information used by a broad range of decision makers, including current clients.

Extension of the Audit/Attest Function

As the profession's "core product," the audit continues to play a vital role in improving liquidity, reducing cost of capital, and promoting honesty in securities markets. However, in response to rapid changes taking place in the environment, CPAs need to become involved in a much broader range of information than that encompassed in an audit. The nature of the CPA's involvement with information also must change.

The Committee defined assurance as follows to broaden the profession's perspective:

> Assurance services are independent professional services that improve the quality of information, or its context, for decision makers.

The above definition involves the following aspects:

- *Independence* is central to the trust users place in CPAs.

- *Professional services* involve the CPA's professional judgment — an aspect that cannot be replaced by software or nonprofessional competitors.

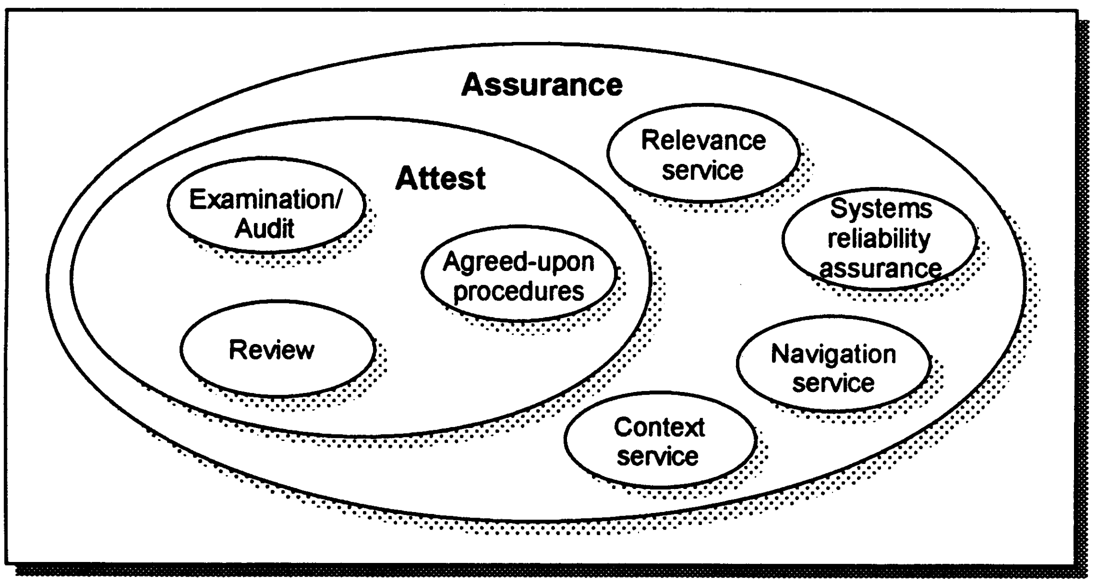
- *Quality* can refer to either reliability or relevance of information.

- *Information* can be financial or non-financial, historical or prospective, discrete data or systems, internal or external.

- *Context* is the way the information is presented or the decision model in which it's used.

- *Decision makers* are the users of the information; the service is designed to be valuable to them in meeting their needs.

As the figure below indicates, this definition encompasses audit and attestation engagements and also accommodates many new service concepts.



Current Competencies and Competitive Advantage

In The Profession's Current Competencies, the Committee identifies 19 CPA competencies. When those competencies are combined with the CPA's reputation for independence and objectivity and the CPA's access to the full range of an entity's activities, the profession clearly has competitive advantages compared to other would-be assurance providers.

Increasing the Value of Current Services

Audits will continue to be viewed as an effective means to reduce the cost of capital, improve liquidity, and promote honesty in securities markets. To retain value and also to act as a credible platform for service extensions, the audit must undergo change as described below (and described in more detail in Future of the Financial Statement Audit). By pursuing these changes, medium CPA firms can capitalize on significant opportunities to add value to existing services.

- ***Value-added must increase.*** Auditors need to place increased emphasis on delivering additional value from an audit through analysis and interpretation, which will require greater audit partner involvement. By combining their unrestricted access to a client's affairs with knowledge of a client's industry, the auditor can gain insights regarding strengths, weaknesses, opportunities, and threats of great potential value to clients. This information should be systematically organized and presented to clients as a key "deliverable" of an audit. This move may necessitate a change in mindset of audit team members.

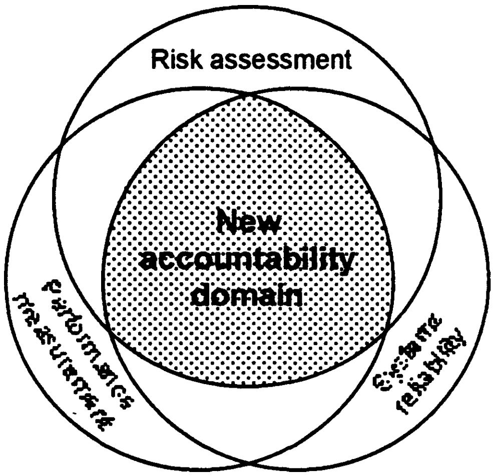
- ***Timing will change.*** Audit timing will be affected in two ways. First, auditors will continue to be requested by public company preparers to give timely assurance to them on significant, non-routine transactions, which will eventually lead to continuous auditing as the norm. In turn, continuous auditing may lead to continuous reporting (internally and possibly externally on an exception basis) supplemented with an annual audit report. Second, users will likely demand more timely historical financial information, particularly regarding issues of financial distress, risks, uncertainties, and estimates, which will likely lead to more timely auditor involvement on these issues as well.

- ***Attack "tough problems."*** Users will expect auditors to do a better job detecting fraud and illegal acts, providing early warning of financial distress and going concern issues, and dealing with risks, uncertainties, and estimates. Auditors need to develop new weapons for detecting fraud, including electronic sensors, software agents, computer modeling, and triangulation (i.e., exploitation of the connectivity relationships among various entities in the preparer's value chain).

Extensions of Existing Assurance Services

Significant opportunities exist for medium firms to provide risk assessment, performance measurement, and information systems assurance services.

CPAs presently are involved in limited aspects of these three assurance services in conjunction with the performance of an audit. The new services represent extensions (though *substantial* extensions) of the current activities. And the intersection of the three services represents a possible new accountability domain into which today's financial reporting/auditing model might migrate.



Assurance on Risk Assessments

This service provides assurance that an entity's profile of business risks is comprehensive and that the entity has appropriate systems in place to effectively manage those risks. Business risk is the threat that an event or action will adversely affect an organization's ability to achieve its business objectives and execute its strategies successfully. Business risks may be classified as strategic environment risks (e.g., from substitute products or changes in customers' preferences or capital availability), operating environment risks (e.g., from lost assets or market opportunities, damaged reputation, or ineffective or inefficient business processes), and information risks (e.g., from the use of poor quality information for operational, financial, or strategic decision making).

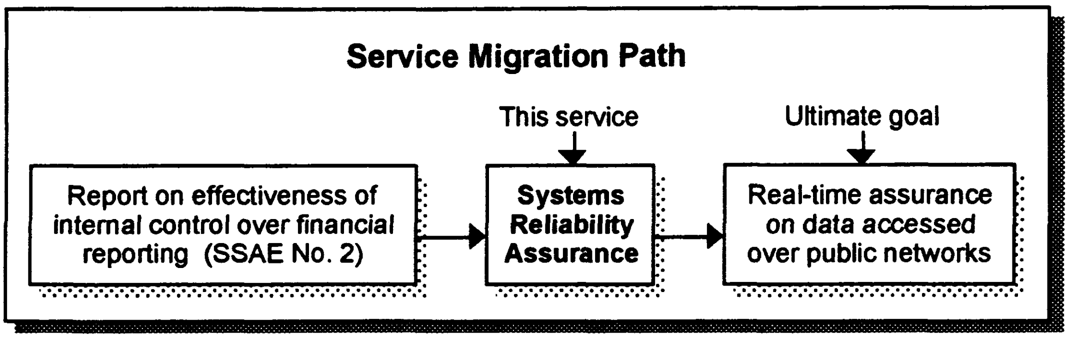
A comprehensive assessment of potential risks and the entity's systems for dealing with those risks would be of considerable value to the owner/manager of a small or medium-sized business or to corporate management and boards of directors. CPAs are generally perceived as having knowledge about business risks and are therefore credible suppliers of such services.

Assurance on Business Performance Measurements

This service provides assurance that an entity's performance measurement system contains relevant and reliable measures for assessing the extent to which entity goals and objectives are achieved and/or performance has met or exceeded industry norms. The service would be of considerable value to the owner/manager of a small or medium-sized business or to corporate management and boards of directors. In order to evaluate the performance of a business enterprise, decision makers need a comprehensive set of performance measures (both financial and non-financial) that encompass all major activities within the entity's value chain.

Assurance on Information Systems Reliability

This service provides assurance that an entity's internal information systems (financial and non-financial) are designed and operating in accordance with specified criteria. As the figure below indicates, this service represents a major step in a migration path that will eventually lead to real-time assurance on on-line data base systems.



CPAs already have credibility regarding systems that deal with financial reporting and are also perceived as knowing about business information systems generally. Market potential for systems quality assurance is roughly gauged in the billions, which is a very small percentage of the total investment business spends yearly on new hardware alone.

Assurance on systems reliability involves two general services:

- ***Management service.*** Reliability of systems that produce data for use by boards and management; this is a broader data set than merely that used for financial reporting.

- ***External service.*** Reliability of systems that produce financial reporting data used internally and externally, that is, contemporaneous data. Initially, this service would involve regular, periodic reviews. Eventually, it would evolve into continuous, real time assurance.

CPA firms can use the COSO model and other existing tools for internal control evaluation to assess systems reliability.

Other Service Opportunities

As part of its process of identifying new service opportunities, the Committee surveyed 21 medium and larger CPA firms to find out what types of extended assurance service engagements those firms had recently completed. This survey resulted in the identification of over 200 potential service opportunities. In light of these data and customer needs information, the Committee developed "templates" (i.e., brief descriptions of each service, who will pay, who will use, value to the user, etc.) for the following seven assurance service opportunities:

- ***AIMR Compliance***. Assurance on investment managers' conformity with AIMR Performance Presentation Standards.

- ***Policy Compliance***. Compliance with company policies, such as codes of conduct, human resource policies, etc.

- ***Outsourced Internal Auditing.*** Provision of internal auditing services to clients.

- ***Trading Partner Accountability***. Assurance that a client's trading partners have appropriately fulfilled their responsibilities.

- ***Mergers and Acquisitions***. Assurance regarding various aspects of a merger, such as appropriateness of accounting methods, amounts reported, values, adequacy of systems and controls, etc.

- ***ISO 9000 Certification***. Certifying company's compliance with ISO 9000 and similar series standards.

- ***World-Wide Web Assertions***. Assurance on the reliability of information contained in web pages.

New Assurance Services

The Committee has developed detailed business plans for the following three new services:

- ***Health care performance measurements***.
- ***Electronic commerce***.
- ***ElderCare Plus***.

Health Care Performance Measurements

This service would provide assurance to patients, employers, unions, and other customers of health care services whether the quality of those services met specified criteria.

The range of possibilities includes:

- Attesting to quality information reported by others.

- Accumulating and reporting on relevant data.

- Reporting on performance measurement systems and related controls.

The market for this new assurance service is estimated to be roughly $1-2 billion annually, and there will be opportunities in every component of the health-care system, including doctors, medical groups, clinics, hospitals, and extended-care facilities.

Electronic Commerce

Electronic commerce assurance services involve the provision of assurance to various participants (consumers, retailers, credit card issuers, EDI users, network service providers, software vendors, etc.) in electronic commerce that the systems and tools in use are designed and functioning in accordance with accepted criteria for integrity and security. By the end of the next decade, most of the volume of business transactions is expected to be conducted electronically. The market potential for electronic commerce assurance services is estimated to be at least $1 billion.

The range of possibilities for electronic commerce assurance services includes:

- Reporting on whether a value-added network provider's procedures conform to accepted criteria for integrity and security.
- Reporting on whether a particular software package used in electronic commerce has appropriate integrity and security controls.
- Reporting on whether organizations that are entrusted with encryption keys have appropriate security controls.
- Reporting to users of electronic payment cards that those cards have appropriate security features.

ElderCare Plus

ElderCare Plus provides assurance to elders and their families that specified goals regarding care for the elderly are being met by various care givers. This service focuses on elder persons who want to live independently in their own homes. The market potential for this assurance service is estimated to be in the range of $2-7 billion annually. The service should be of particular interest to medium firms that presently have a large number of individuals as clients.

The range of ElderCare Plus service activities includes:

- ***Quality of care***. Inspection of evidence to determine whether care givers are meeting agreed-upon performance criteria.
- ***Review and supervision***. Review of routine financial transactions for appropriateness and supervision of investments and accounting for the estate.

- ***Investigation***. Investigation of unusual or unexpected situations and providing information for handling of those situations.

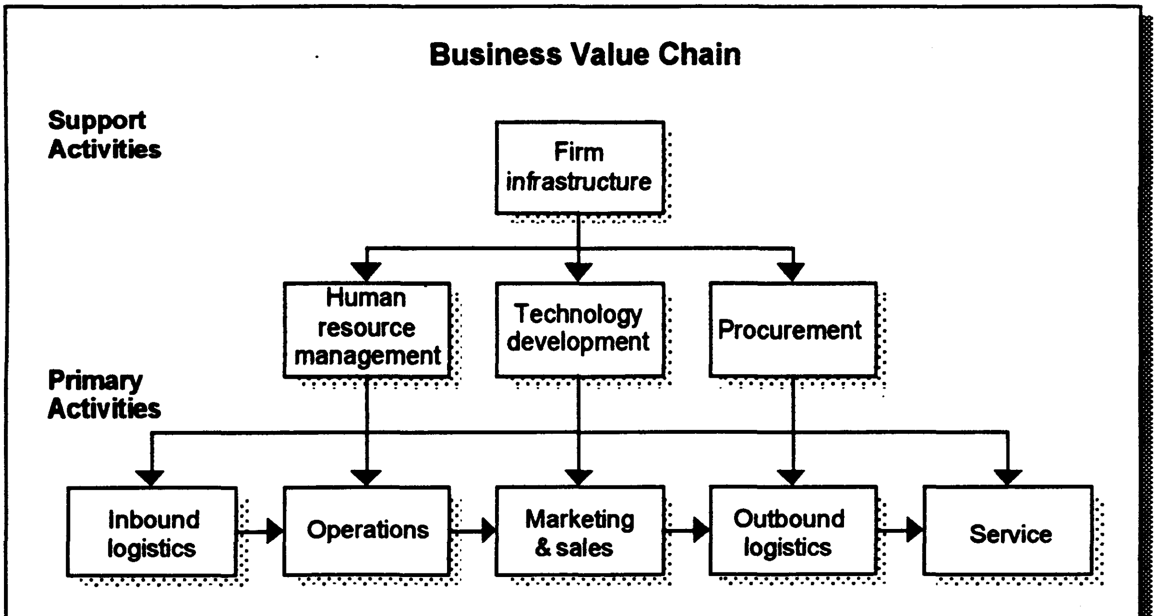
- ***Reporting.*** Reporting to elders and their families on activities of the month and the degree to which care givers are meeting agreed-upon criteria.

Framework for Identifying Opportunities

As CPAs expand assurance services into new areas, they need a framework (a business model) for viewing a client's information needs and for relating new assurance services to those needs. The "business-value-chain" framework serves this purpose. The model is equally applicable to small firms and large, manufacturers and service businesses, and profit-oriented and (with minor modifications) not-for-profit entities.

Value Chain

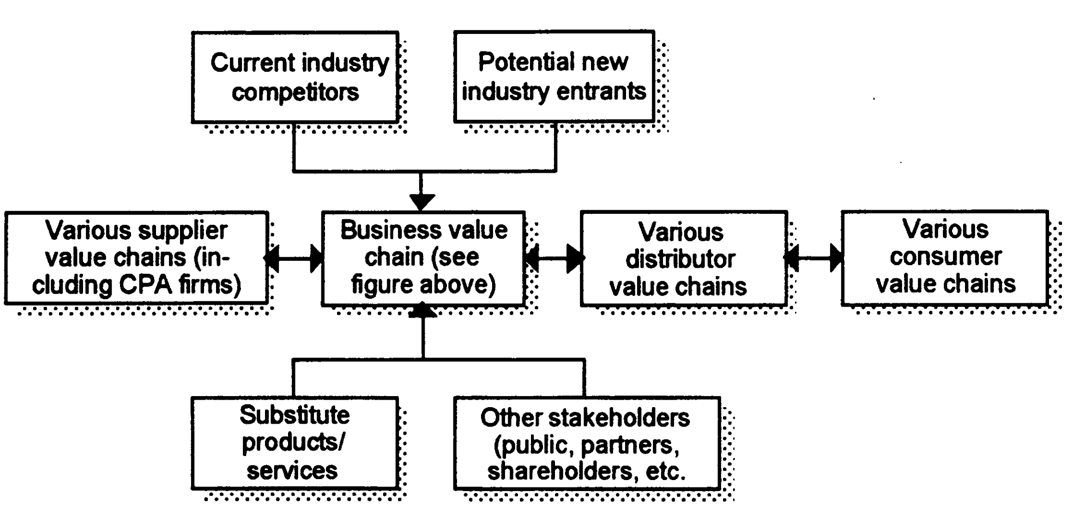
Value to a customer is the amount a customer is willing to pay (revenue) for a product or service provided by a business enterprise. In order to bring value to customers, business enterprises engage in a set of value-creating "primary" and "support" activities identified in the figure below. In the long run, an enterprise is successful to the extent that the total value it creates for customers in all of its value-creating activities exceeds the total costs of all resources consumed by those same activities.



Adapted from Porter, M. E., Figure 2-2, The Generic Value Chain, p. 37.

Value System

As shown in the next figure, an individual business enterprise operates within a larger value system involving other firms and individuals (including CPA firms), all of which influence the value ultimately delivered to the consumer.



Adapted from Porter, M. E., Figure 2-1, The Value System, p. 35, and Figure 1-1, The Five Competitive Forces that Determine Industry Profitability, p. 5.

The CPA's Expanding Role

The CPA's traditional role in a client's value chain has been rather limited. It has focused on a narrow set of risks (audit risk and its components), a narrow set of performance measures (historical financial measures), and a narrow view of information systems (internal historical financial transaction-based systems). Medium firms can greatly expand their traditional role in clients' value chains by new services involving risk assessment, performance measures, and information systems reliability.

Action Plan — Firms

In developing an action plan for pursuing new assurance services, medium-sized firms should consider the following. Many medium CPA firms are members of associations, and some of the following recommendations can be pursued at the association level.

Adopt a Customer Focus

The key deliverable of an assurance service engagement is improvement in the quality of information used by decision makers. Hence, assurers need to focus on decision makers and the processes they use to make important decisions. The Committee provides guidance in understanding decision makers' needs in the following reports:

- A Model for CPA Firms to Turn Needs Into Services.
- Relevance Enhancement Assurance Services.
- New Assurance Services — Linkages to a Client's Business Value Chain.

Add Value to Current Services

The current audit must provide a credible platform for launching new services. In Future of the Financial Statement Audit, the Committee identifies several ways in which firms can add value to current services. Key points are summarized in Opportunities.

Branch Out into New Services

Medium firms should evaluate the new services developed by the Committee and pursue those that are consistent with the firm's strategic objectives.

Medium CPA firms should also consider putting processes in place for developing new services as a regular part of doing business. The Committee provides guidance on how to develop new services in A Model for CPA Firms to Turn Needs Into Services. Firms should also consider a list of factors that clients value in engaging CPAs to provide additional assurance services.

Take Steps to Reduce Litigation Risk

The Committee studied factors that influence the risk of litigation. Although the risk cannot be eliminated when developing new assurance services, it can be reduced by taking actions such as the following:

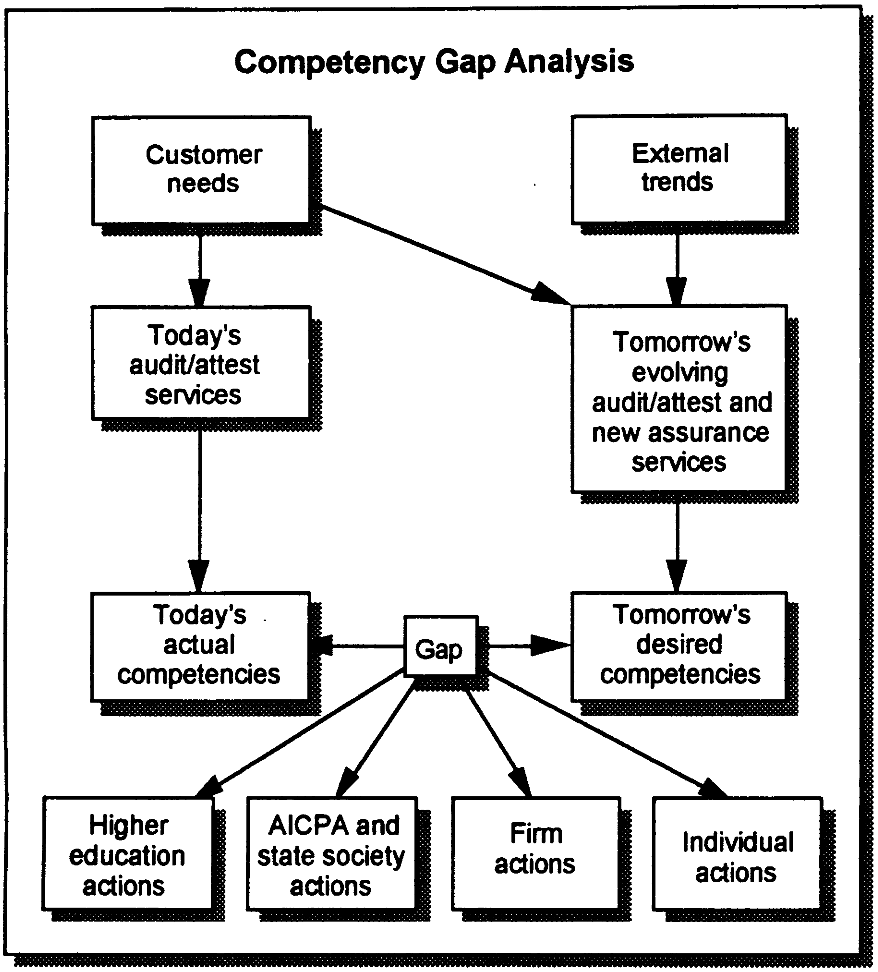
- Inclusion of cautionary language in the CPA's report or other output.

- Identifying and contracting with the specific users of the services. This approach can both limit the claims to an agreed-upon level and limit the exposure to lawsuits from other parties.

- Using alternative dispute resolution techniques.

Bring New Skills to Bear

Medium firms adopting and developing new services will need to perform a "competency gap analysis" — see the figure below — as outlined in Competencies for the Future. The actions that might be taken by medium firms will depend on their size, the extent to which they have in-house capabilities for instructional development and delivery, and the extent to which they choose to hire professionals with needed competencies rather than build those competencies internally.



Action Plan — Individuals

To remain in demand as "information specialists" in the decade ahead, practitioners in medium CPA firms need to take personal responsibility for improving their capabilities in the following areas:

- ***Adopt a customer focus.*** Personally take every opportunity to learn about the needs of decision makers that might be served by various types of assurance services.

- ***Invest heavily in a program of life-long learning.*** Perhaps the most graphic example of this need is in the area of information technology (IT). Enhanced competencies in IT will only come about by a person's willingness to continuously stay abreast of developments in IT and how they are reshaping business. Also, practitioners need to personally experiment with new hardware, software, communications devices, and electronic commerce to learn first hand how these things work and their advantages and limitations.

- ***Seek accreditation.*** As the AICPA gradually expands its program of accrediting specialists, individuals need to pursue accreditation, as appropriate, to gain the credentials necessary for competing effectively in tomorrow's market for assurance services.

- ***Stay abreast of new assurance services.*** Use the CPAs Discuss Assurance Services portion of the AICPA's Assurance Services website to locate CPAs with concerns similar to your.

Action Plan — AICPA

The Committee has developed a set of recommendations directed to the AICPA that call for action in the following areas of particular interest to medium CPA firms:

- ***Creation of an Assurance Services Committee.*** This committee, which has already been appointed, will be a standing committee made up of market-oriented individuals from small, medium, and large firms whose charge is to identify and develop new assurance services.

- ***Branding of new services.*** To achieve brand dominance, the AICPA should coordinate programs aimed at branding new services as CPA services through advertising, professional standards, measurement criteria, quality controls, accreditation, and cooperation with members and their firms.

- ***Customer orientation.*** The AICPA should open itself to the public through its Internet home page to seek feedback from consumers and CPAs regarding assurance services needs and quality of delivery.

- ***Information technology.*** The AICPA must create a sense of urgency regarding the need to expand CPA competencies to deal with the growing information intensive environment.

- ***Improving the current audit.*** The AICPA should provide practitioners with additional guidance on:
  - Fraud prevention/detection.
  - Dealing with financial distress.
  - Dealing with risks, uncertainties, and estimates.

- ***Standard setting.*** The standard-setting process should be redesigned to cut cycle times and accommodate the rate of change in financial markets and electronic information.

Large CPA Firm Perspective

The future belongs to the firms that adapt best to the changing practice environment. How to adapt and how to do it well are the key questions. It does no good to invest in competencies for services clients and potential clients don't want to buy. Firms must understand the current status of their markets, how they are evolving, what new markets will be opening, and how CPA skills can add value. The range of possibilities — as identified by the Special Committee on Assurance Services — is enormous, because information needs are growing at a staggering pace. But if CPA firms do not meet those needs, non-CPA firms will.

Adapt or Decline

The status quo is not an option for large accounting firms. They must look to the marketplace and adjust their service portfolios based on the information needs of clients and potential clients.

Forces Transforming the Practice Environment

The quality of the information organizations and individuals use will more and more determine their economic and socio-political fate. What major influences are changing needs for assurance services?

Threats

Traditional services are not growth areas, non-CPA competition is increasing, and cost pressures will not relent.

Opportunities

They're plentiful, and their scope becomes clearer from the definition of assurance services and the new services recommended by the Committee.

Framework for Identifying Opportunities

The client's value chain (or a comparable business model) can help you identify potential service opportunities and explain to clients why they need assurance services.

Action Plan — Firms

Your firm needs to develop a service-identifying process, understand customer needs, evaluate identified new services, minimize liability risk, acquire or develop needed competencies, and always be aware that market permission begins with the GAAS audit.

Action Plan — AICPA

Learn the AICPA's role in service development and "branding" new services as CPA services through quality control, measurement criteria, education for new services, and outreach programs.

Adapt or Decline

Most large firms believe that without adaptation to the evolving practice environment, their practices will decline. They periodically evaluate the practice environment in order to develop and invigorate their business strategies and service offerings. All firms should have this attitude.

But the attitude will not be enough. Without a clear fix on the needs of their customers, a creative approach to developing services that meet those needs, and the competencies to perform them, accountancy firms will decline.

The assumption, hopefully rare, that regulators will create markets for accounting firms is economic suicide. It ignores the message of the market-based economic model embraced throughout our country and now dominant throughout the world.

Forces Transforming the Practice Environment

Eight major trends will change CPAs' markets over the next decade. Several are briefly discussed below; all are discussed in Megatrends Affecting Assurance Services.

Information technology will have the greatest effect, influencing almost all the other trends. The profession is in the information business, and computer and telecommunications technologies are transforming every aspect of the production, storage, acquisition, and use of information.

- Information technology is ***accelerating a shift in power from the producer to the consumer of goods or services***. Consumers, including consumers of information, can communicate with one another, develop common views, and express them jointly with the aid of information technology. Meanwhile producers can proactively learn more about consumers' preferences. Both features help orient producers toward satisfying customers to a greater degree than in the past. Accounting firms must therefore focus more on consumers' needs than ever before, both to deliver the most useful services to decision makers and to be of greatest help to clients.

- ***Data access will replace reporting.*** Companies will move from transmitting or reporting information to investors and creditors to allowing them access to corporate information. On-line users will be allowed defined, limited access to selected portions of corporate databases.

- ***All forms of electronic commerce will grow*** and with that growth will come associated information problems — for example, assuring accuracy, authenticating parties, protecting privacy, creating trust. Ultimately, all buyers and sellers will be affected by this trend. Audit tools will be reshaped to cope with the new manner of conducting business and recording transactions.

- ***Information technology will call for investments and make behavioral demands.*** Education of some sort as well as other arrangements to guide behavior will continue to be necessary to maximize the effectiveness of intranets and internal databases. Our economy has not come near obtaining the full teamwork values offered by information technology.

New technologies, competition, changes in worker relations, and attempts to control risk are ***changing organizational structures and relationships***.

- There will be more alliances, joint ventures, and temporary organizations formed to pursue short-term objectives. A single entity may be involved in intricate alliances with a variety of business partners, some short-term and others of longer durations.

- Enhanced communications will continue to facilitate the flatter corporate structures that many firms have created and many management experts have been heralding for some time as more efficient.

- This trend will affect the opportunities for future assurance services and change the conditions in which traditional ones are performed. Short-term organizational structures, for example, can create difficult accounting problems — e.g., the applicability of the entity concept of accounting, difficulties in measuring performance and accountability, different meaning for the going-concern assumption, and arms-length transactions being the exception, rather than the rule.

Accountability demands (i.e., demands for reckonings owed and provided by one party to another regarding some past or future action) will continue to increase in the future. As society creates new relationships and companies form new ventures, there will be an increasing need for accountability among the parties. Advances in information technology lower the cost of providing reckonings and increase the risks of not providing them, because parties owed accountabilities can communicate and act together more easily. Growing interdependency creates obligations that can be discharged by accountability reckonings. Our society's political concept of responsible institutions, extending from the notion of responsible government (i.e., responsible to voters or taxpayers), also contributes, as does the notion that openness is good public relations. Accountability demands will increase the need for assurance services.

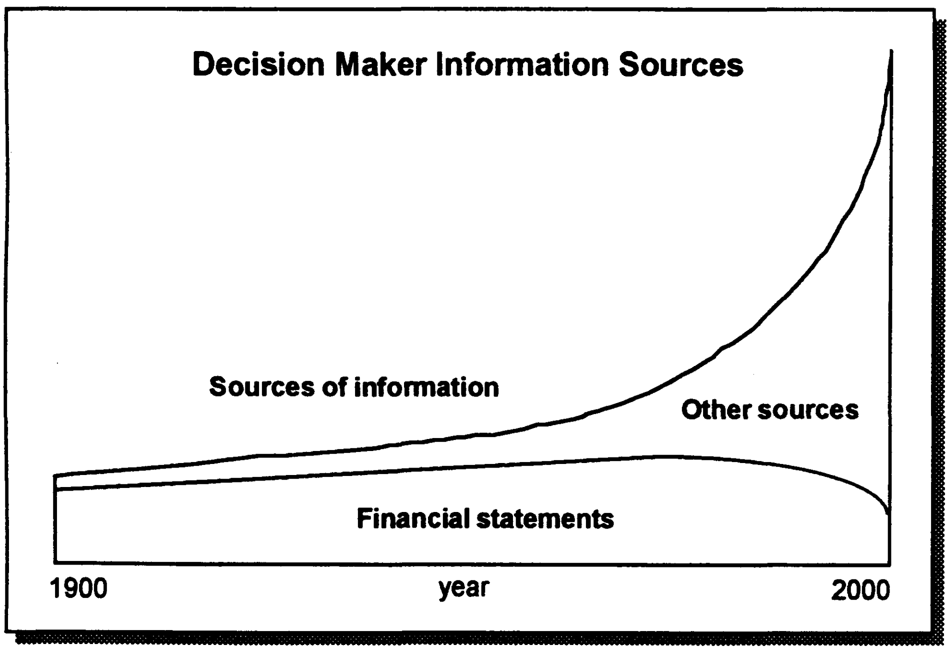
Threats

The Buyer's Market in Audits

Financial-statement audits deliver great value: they promote confidence in the capital markets, reduce the cost of capital, and reduce the risk of information errors by investors and creditors. But this type of auditing is not now a growth industry, and there is no clear prospect of improvement in the long term. Revenues for the profession as a whole have been flat in real dollars for a number of years, and headcounts have been declining.

Losing Information Market Share

Another cause of the buyer's market and a problem in itself is the decline in the proportion of decision-making information that is covered by audit reports, as illustrated below.



While financial statements — prepared under accounting principles developed to describe industrial-era firms — describe firms less and less well than in the past, technology is causing a proliferation of other sources of information used by decision makers, including investors and creditors. A number of studies show that financial statements do not meet their needs for entity-specific information. Thus financial statements — and, with them, audits — are losing their share of the decision-information market. The changing mix of information needed to assess modern corporations suggests loss of market share will continue. The kinds of assets that enable profitable growth are increasingly off-balance-sheet intangibles (such as data used to run the business, marketing capabilities, the demand pull of brands, knowledge translatable into new products or services or improved processes, and organizational learning capacity).

Competition

The profession faces three types of competition:

- Intraprofessional competition, which is by now familiar to all firms.

- Product substitution and outside competition in traditional markets. Computers with software will be performing a greater proportion of audit and other attest work, and this will be an opportunity for non-CPA firms, some of which are well capitalized and can afford the investments in information technology.

- Competition in markets for new assurance services. Outside competitors, some with track records of relevant expertise as well as capital, will sell new assurance services originated within the profession or outside it. The new services will not be subject to the strictures of current legal and regulatory monopolies. Nor will CPAs have the branding advantages that they have with traditional accountancy services unless those branding advantages are newly created.

Periodic Audits of Paper Reports Will Be Superseded.

Information technology will make it possible for companies to transmit data to on-line users in near real-time. It will increase the capacity of users to process data. And it will make it possible for companies to give users defined, limited views of selected databases.

In such a world, paper audit reports on historical financial statements will have a much smaller place and less relevance than they do today. Users will be able to select the information they need and format it to suit their intended analyses. "One-size-fits-all" general purpose financial statements cannot meet such specific needs. Nevertheless, the Committee found that audits of historical financial statements can, with some modifications, retain their value and will probably continue to be mandated by the SEC for the foreseeable future.

Costs

The accounting profession is becoming more capital-intensive. Hardware and software costs are heavy even though the cost per unit of processing power is declining. Education is also an ongoing cost. Litigation costs are a major threat, not only in absolute amounts, but because the costs represent no future benefit and injure reputations. (The litigation problem is described in A Brief Overview of the Evolution and Status of Auditors' Liability.)

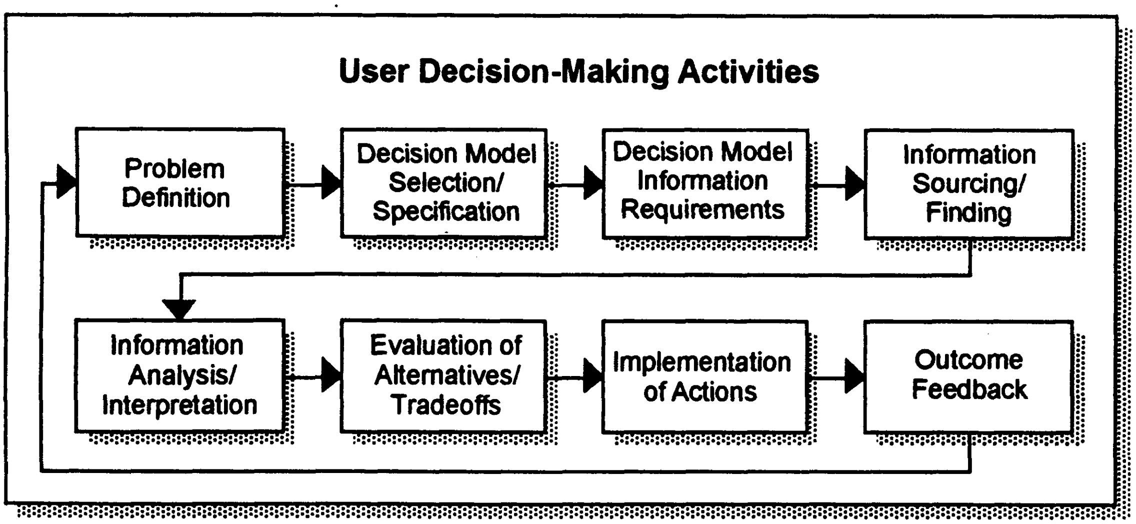
Opportunities

They're Plentiful

Knowledge work is increasingly becoming the predominant mode of employment and the most assured path to business effectiveness. The greater the role information plays in our economy, the more need for assurance services. Add to this the increasing role of accountability and CPAs' current market advantages, and the question is only this: How can the skills and services of accountants be oriented to take advantage of burgeoning market needs for information services?

- *CPAs Have Market Advantages*
  CPAs bring to the marketplace reputations for independence and integrity; skills in understanding business operations, systems, and controls; experience in performance measurement; and unrivaled access to customers through audits. On those grounds, CPAs are well positioned to engage in competition to develop and market new assurance services through redeployment of existing competencies.

- *The Lens of Customer Needs*
  One way to see the potential range of assurance-service opportunities is to focus on customers' decision-making processes. The leverage a decision maker gains from information depends on the degree to which all decision-making processes are effective, not just those involved in obtaining information. There are several processes, as the following diagram shows, and each of them is an opportunity for information services that serve decision makers.



- *What Customers Said*
  The Committee performed research on customers' information needs. Among the findings from interviews with members of senior management were desires for information on corporate risks, systems quality, and industry comparisons. A variety of

respondents, including senior management, expressed needs for performance measurement information. Investors were interested in the quality of management and the effectiveness of corporate processes and controls. (The full set of findings is in Analysis of Interviews with Potential Assurance Customers.) These opportunities were consistent with the what was inferred from the megatrends surveyed by the Committee and the study of the economics of the profession. The trend study also provided additional opportunities — accountability reports, evaluations of benefit programs, health care effectiveness assurance, and the informational prerequisites to successful electronic commerce, for example.

Based on the research, the CPA's traditional independent attest function, the core benefit of the CPA's traditional independent information services, and a focus on the customer, the Committee developed a definition of assurance services with a fairly wide scope, several recommended services, and defined processes for the AICPA and firms to use to identify additional services in the future.

Definition of Assurance Services

The Committee defined assurance services this way:

> Assurance services are independent professional services that improve the quality of information, or its context, for decision makers.

The Types of Information and Improvement

The definition identifies the customer for the service — the decision maker — and the benefit the service provides to the customer — improved quality in decision-making information. There is no limit on the type of information. It can be financial or nonfinancial; can describe or measure performance or conditions; can be about discrete phenomena or about processes or systems (such as internal control or decision models); can be direct (such as information about a product) or indirect (such as information about someone else's assertion about a product); and can be internal or external to the decision maker.

Nor is there a limit on the type of improvement. The assurer can provide improved reliability or improved relevance or improved context. Relevance is improved when an assurer assists a decision maker in improving the identification or use of information or models in making decisions.

Assurance Independence

Independence is a distinguishing feature of assurance services, just as it is a distinguishing feature of audit and other attest services. The concept of independence for assurance services is consistent with, but framed differently from, its counterpart for audit or attestation services:

> Assurance independence is an absence of interests that create an unacceptable risk of material bias with respect to the quality or context of information that is the subject of an assurance engagement.

This language would be applied only to assurance services that are not already subject to authoritative independence requirements, as are audit and other attest engagements. It goes beyond, while being consistent with, the current independence rules (which are generally limited to financial-statement audits) to answer novel independence questions for new types of services.

CPA's Relationship to the Decision Maker

The definition of assurance services does not restrict the relationship between the CPA and the decision maker. It can fit the current audit model, where the auditor gives an opinion on data that is management's responsibility for use by third-party investors. And it can fit a two-party relationship, where the assurer provides information directly to a decision maker who has engaged the assurer. However, three-party relationships are expected to be more typical. Some such three-party relationships may have characteristics of two-party relationships, as in the case of an assurance engagement paid for by institutional investors that is providing information to evaluate management's performance.

Want More?

The Committee has described the definition of assurance services and the concepts underlying it at some length, and it has elaborated the notions of relevance services and assurance independence. For more, see Assurance Services — Definition and Interpretive Commentary, Relevance Enhancement Assurance Services, or Assurance Independence.

Recommended Assurance Services

The Committee developed business plans for six services, explored several others in abbreviated form, and identified many more through a survey of services already provided. The list below of services for which business plans have been developed presents what is likely to be most suitable to large firms first.

Electronic Commerce

Attest whether the electronic commerce service providers and the tools and systems in use are functioning in accordance with accepted criteria for electronic commerce integrity and security. The service would provide assurance with respect to the integrity and security of electronic transactions, electronic documents, and the supporting systems. Electronic commerce is still, relatively speaking, in its beginnings and is expected to grow rapidly in the next ten years. The beneficiaries of the assurance service would be all participants in the transactions and the infrastructure for the transactions (e.g., consumers, retailers, credit card issuers, EDI users, network service providers, and software providers). Potential payers include companies who specify an electronic commerce system for use by their vendors or customers. In addition, vendors of electronic commerce systems and services may require independent assurances from CPAs to give credibility to their marketing efforts. Criteria for the integrity and security of systems for electronic commerce have to be devised, and the AICPA's role in formulating the criteria will be a very important determinant of market permission.

Business Performance Measurement

Assess the relevance and reliability of an entity's performance measures. Such measures are relevant if they measure the extent to which the entity has achieved goals. The scope of the service includes nonfinancial measures. Potential engagements or engagement segments include assessing the reliability of the information reported from an organization's performance measurement system, assessing the relevance of the organization's performance measures, identifying relevant performance measures for organizations that need them, and helping to design and implement a performance measurement system. Senior management and boards of directors are the principal potential purchasers and users of these services. Investors and creditors might use them as well in evaluating management and the company. Related consulting services may be provided, such as advising how the organization can improve its performance measurement system and its results.

Health Care Performance Measurement

Performance measurement of participants in an economic sector is a family of services that have great potential; a business plan has been developed only for health care performance measurement. This service consists of attesting to care providers' performance for the decision-making benefit of care recipients and their representatives (e.g., employers, unions), who, along with the care recipients, are purchasers of the services. There is a widely recognized need to assess the quality of care, partly because the emphasis on cost control has raised fears that patients' health will suffer from a declining level of medical service. Although market permission is a hurdle, because of the needed subject-matter expertise, there are now no nationally agreed-upon performance standards and developing them or participating in their development could provide subject-matter credentials.

Risk Assessment

Improve the quality of risk information for internal decision makers through independent assessments of the likelihood of adverse events of significant magnitude and quantify the possible magnitudes of the events. Business risk is the threat that an event or action will adversely affect an organization's ability to achieve its objectives and execute its strategies successfully. The types of risks can be classified as environmental risks, business process and asset risks, and information risks. In the current highly competitive business environment, additional leverage on risk assessment would be salable. CPAs are generally perceived as having knowledge of business risks, on the good grounds that they must make such evaluations on the audit. The principal purchasers of this service are owners of small businesses and senior management and boards of directors of larger businesses.

Information Systems Reliability

Assurance that a system is designed and operates in a manner that provides reliable information (other things being equal) or operates according to accepted criteria. This service focuses on design as the route to reliability because real-time information systems need to avoid errors. Time does not permit the older inspection-correction-rework concept. The service could be performed for the benefit of boards of directors and management or for third-party users. The criteria developed by COSO could be used to assess the systems, and management's objectives could provide additional criteria. Potential competitors include financial institutions and systems houses.

ElderCare Plus

Provides assurance to concerned parties as to whether care delivery goals for elderly individuals are being met. Some mix of ancillary services would be integral on the typical engagement (e.g., assistance in selecting care providers, review of routine financial transactions, accounting for the estate). The aging of the population, the proportion of wealth controlled by the aging, and the geographical dispersion of younger family members in our society make this a needed service. Smaller practitioners who have built service relationships to individuals would have a route to market entry. CPAs already possess the measurement and reporting competencies needed for the job, although additional training would be needed.

Other Services

The Committee recommends several other services. They derive from a list of over 200 services reported in a survey of 21 medium and larger CPA firms, were evaluated for their suitability to firms and their marketability, but were not subjected to study at the same level of detail as the six above. Several are listed below.

- ***AIMR compliance***. Assurance on investment managers' conformity with the Performance Presentation Standards of the Association for Investment Management and Research. AIMR standards cover how investment managers measure the returns they disclose to fund sponsors and the public.

- ***World-Wide Web assertions***. Report on the reliability or usefulness of information contained in web pages. The home-page user would be able to access the CPA report when visiting the home page.

- ***Policy compliance***. Assurance of compliance with specified company policies (e.g., codes of conduct, human resource policies).

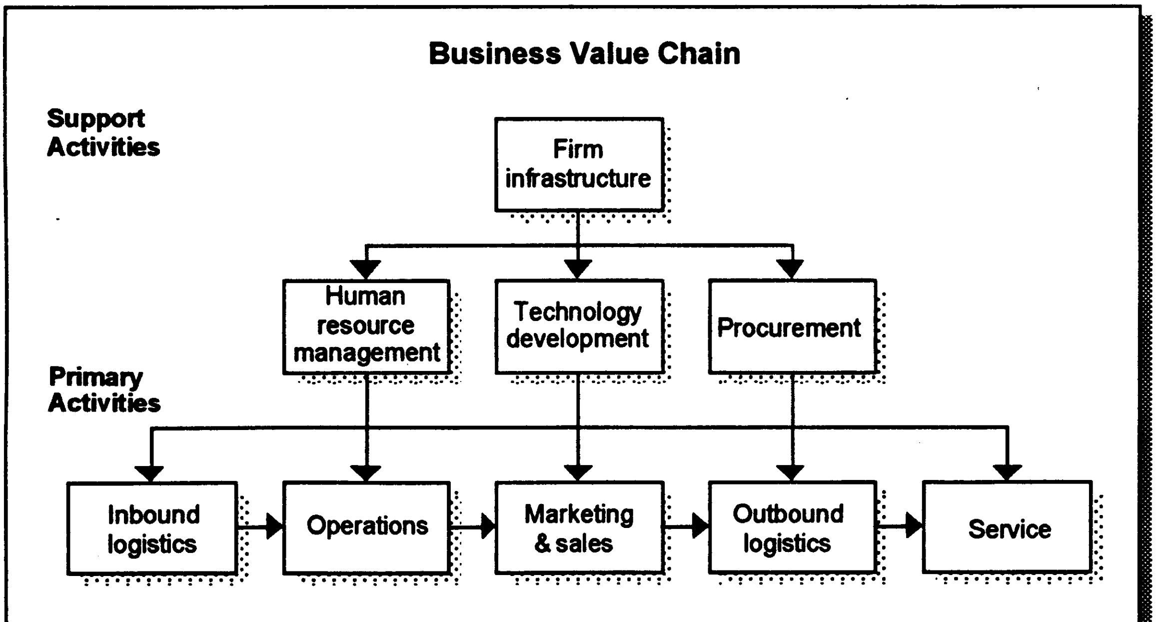
- ***Trading partner accountability***. Assurance that a client's trading partners have appropriately fulfilled their responsibilities (e.g., whether rents based on sales are appropriate or whether a supplier's obligation to provide the lowest prices is fulfilled).

These services are described in greater detail, including the parties who would use them and their market potential.

Framework for Identifying Opportunities

A reliable and comprehensive business model can help identify new services for particular organizations and can help sell those services when used to demonstrate their need. The value chain model is based on the work of Michael Porter, a well-known business school professor, but another business model of comparable quality will work. Practitioners will be substantially empowered if they internalize the concepts in such a business model and can use it to analyze the business circumstances and processes of clients and potential clients, identify needs for information and assurance services, and explain the service needs.

The value chain is a concept that organizes an entity's activities into a process of "adding value." "Value" is added by activities that contribute to the revenue-producing capacity of the entity's outputs.

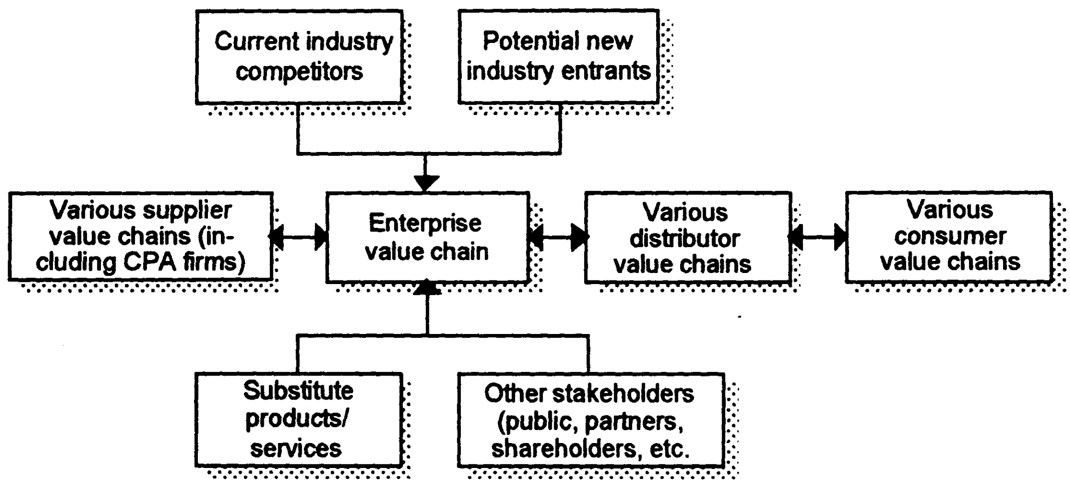


Adapted from Porter, M. E., Figure 2-2, The Generic Value Chain, p. 37.

Customers who purchase the outputs provide the revenue. But the entity could not produce the outputs alone. It is also the customer of other suppliers, has value-adding relationships with its employees, and has value-adding internal processes. All these relationships place the entity in a set of related value chains — those of all other entities that affect the original entity's value creation.

The diagram below illustrates a set of multi-entity value chain relationships.

Value System



Adapted from Porter, M. E., Figure 2-1, The Value System, p. 35, and Figure 1-1, The Five Competitive Forces that Determine Industry Profitability, p. 5.

Setting the auditor's activities within the diagram indicates that CPAs have to date provided services of a very limited kind to the entity's value creation (those associated with capital-raising). However, many other value-chain relationships involve accountabilities and needs for information for decision making that could benefit from assurance services. Thus, the CPA's services could be directed to a far broader set of entity activities, conditions, and relationships than is now the case.

The value-chain concept — and how it can be used to envisage numerous service opportunities — is described more fully in New Assurance Services — Linkages to a Client's Business Value Chain.

Action Plan — Firms

Develop or Refine a Process

Large firms should have in place processes that can identify new assurance services, weigh their suitability, and implement those that are suitable. Most large firms have processes in place, but should evaluate their effectiveness and adapt them as necessary. Firms must take responsibility for identifying new services as well as for implementing those the AICPA communicates in the form of business plans if they are found suitable to the firm. In other cases, the AICPA and firms will be working jointly to establish new assurance services, with some mix of AICPA performance guidance, measurement criteria, and accreditation helping to implement and to brand particular services as CPA services.

Focus on Customers

A prerequisite for every firm is to train personnel to learn and understand customers' needs and to understand the role of information technology in shaping both the marketplace and clients' particular problems and opportunities (after hiring with regard to their capability to expand this knowledge). Professionals will be better prepared to identify and plumb customers' needs if they have a rich understanding of business processes, business risks, and the economy and have command of a reliable, comprehensive business model. These requirements are consistent with the large firms' support for reform of college and university accounting programs in recent years.

New services can be identified by learning directly from clients about their needs, by inferring needs from industry knowledge and the study of the trends that are shaping clients' problems and opportunities, and by the interrelationships between needs and trends.

Evaluating Candidate Services

Potential new services should be clearly described and assessed according to criteria. The categories in Seven Other Opportunities and the business plans can be used as models. In addition to identifying key features of the service (who will use the information, its value to the user, and who will pay for the service), the template categories include these criteria to help judge the advisability of including the service in a firm's portfolio: cost/benefit to the CPA, potential market (i.e., market size), marketplace permission, market access, litigation risk, and need for special competencies. Information on applying such criteria is available in A Model for CPA Firms to Turn Needs Into Services.

Liability Avoidance

Litigation risk can be assessed using the approach in Assurance Service Liability. This section contains recommendations for controlling liability for an existing portfolio of services as well as techniques to mitigate litigation risk when developing new services. Two key themes are that firms' risk management can be significantly improved by existing risk-avoidance techniques (e.g., cautionary language, engagement letter clauses, alternative dispute resolution, and service portfolio management) and that there are advantages from bringing assurance-service liability more within contract, as opposed to tort, law than it is now.

The Competency Issue

Whenever new services are considered, competencies must be assessed. If the firm does not have the competencies, they must be acquired or the prospect of developing the new service must be abandoned. If the firm can develop the additional competencies, the cost must be evaluated in determining the desirability of going ahead with the service. In the case of electronic commerce assurance services, it is likely that intensive training will be necessary for many potential service providers in order to have the proficiency necessary to perform the service. The skills and knowledge needed in the service environment over the next ten years are discussed in Competencies for the Future.

Market Permission Begins with the GAAS Audit

Firms' reputations for excellence in the audit of GAAP financial statements are essential to successfully introducing new services. Solid audit performance underscores independence and objectivity, a powerful competitive advantage. Market permissions would be severely curtailed by public distrust of financial statement audits. On the other hand, auditors can add value to financial statement audits by using audit knowledge to deliver observations on the client's risks, opportunities, strengths, and weaknesses. Firms should consider the recommendations for improving the GAAS audit in Future of the Financial Statement Audit.

Action plan — AICPA

The AICPA will have two key roles in the growth of new assurance services — service development and branding services as CPA services through, e.g., standards, accreditation, quality control, public relations, and advertising. In the first role, it will identify services, prepare business plans for their development, and either communicate the plans to firms for implementation or develop the services further by performance guidance and measurement criteria, if they are needed.

An Infrastructure for Identifying Services

Services will be identified by the new Assurance Services Committee (ASC), which has already been created. After identifying a new service and assessing its promise, the ASC will assign those considered promising to task forces for development. The assessment will include considering market size, market attractiveness, CPAs' competitive advantages, the need for CPA-developed standards or criteria, and the litigation risk.

Branding Through Quality Control

Accreditation programs and measurement criteria will assist in branding new assurance services. However, their primary purpose is to improve the quality of services and to make them possible. Branding will be a natural but influential consequence of these efforts, just as the AICPA's ethics requirements are designed to assure a level of quality in the public interest, but powerfully contribute to branding of services as CPA services.

Measurement Criteria

The services recommended by the Committee call for the following AICPA measurement criteria:

- Criteria for the integrity and security of the information and systems used in electronic commerce.
- Criteria for measuring the effectiveness of health care, to be developed alone or in concert with others.
- Criteria to evaluate an entity's performance measurement system.

The AICPA will be responsible for needed guidance to improve the value of the audit, which again will contribute to marketing because effective audits convey the CPA's integrity, objectivity, and competence.

Education

The AICPA will also assist the transition to new assurance services by additional efforts in education. For example, it will develop additional CPE course materials in information technology and performance auditing. In addition, it will consider both establishing ongoing communications with user groups as a means for identifying needs for new or changing auditing standards and/or guidance and working with CPA firms to create a "benchmarking" database for use by CPAs in assisting very small and small clients in assessing their performance.

The Role of Individual Practitioners

The AICPA is both an institution apart from practitioners and an institution composed of practitioners. The action plans for both the firms and the AICPA will depend on how intensively individual practitioners look to the future, determine customers' needs, and develop needed competencies.

This website contains the full set of Committee recommendations to the AICPA and to other parties.

Academic Perspective

The Special Committee on Assurance Services has developed a bold new plan for revitalizing the practice of auditing/assurance as the profession moves into the twenty-first century. Practitioners and the AICPA are already taking action on many elements of the Committee's plan, which have significant implications for academia — both in curricula and research.

Changing Environment

Major trends will dramatically alter the CPA's role in information used for decision making. Modern businesses are changing their processes, which creates new information needs for managers, employees, and others. Fundamental changes in society are also changing individuals' needs for information.

Threats

Threats faced by practitioners translate into a corresponding set of threats to academia, such as a declining demand for accounting graduates.

Opportunities

Abundant opportunities exist for CPAs to expand assurance services to new types of information used by a broad range of decision makers. In the long run, the profession's ability to fully exploit these opportunities will be heavily dependent on the degree to which it can attract highly qualified entrants to the profession.

Framework for Identifying Opportunities

CPAs need a business model for identifying information needs of their clients and developing opportunities for new assurance services. Such a model would also be a useful component of accounting curricula designed to assist students in gaining a better understanding of the broad range of information needs of managers, employees, and others involved in organizational activities.

Action Plan — Academia

Higher education needs to (1) adapt curricula to the new vision of assurance services and (2) initiate research aimed at strengthening current services and supporting movement of assurance services into new areas.

Action Plan – AICPA

Academics should review the Committee's recommendations to the AICPA that have a bearing on curricula and research.

Changing Environment

Rapid changes taking place in commerce and society will dramatically alter the needs and demands of decision makers for information and related assurance. Accounting information (i.e., historical, financial, transaction-based information) no longer can be considered *the* "language of business." Other types of information, much of it non-financial, is becoming critical for business decision-making purposes.

In Megatrends Affecting Future Assurance Services and Effect of Information Technology on the Assurance Services Marketplace, the Committee identifies new information needs that are arising because of:

- ***Changes in information technology.*** The scope of information technology and its rate of change are redefining key aspects of businesses and other organizations, including organizational structures; products and services; internal processes for acquiring, converting, and delivering products and services; and relationships among organizations, consumers, assurers, etc. These changes will have profound effects on the needs of decision makers for new types of information and related assurance.

- ***Increased demands for accountability.*** Accountability is the reckoning owed and provided by one party to another regarding some past or future action. As society creates new relationships and companies form new ventures, there is an increasing need for accountability among parties. Advances in information technology lower the cost of providing accountability; the risks of not getting it are great.

- ***Changes in composition of capital suppliers.*** Many individuals are entering the stock market directly or indirectly because of low returns offered by insured institutions or because of shifts in the types of retirement plans in use. These individuals will have future needs for timely information similar to needs of institutional investors that are presently being met by public companies.

- ***Changes in the age distribution of the population.*** The population of the United States is aging. By the year 2000 it is estimated that 16.6 million people in the United States will be 75 years of age or older and that approximately 4.3 million will be 85 or older. Wealth controlled by the over-65 age group already amounts to more than $11 trillion. The elderly and their concerned family members will have needs for information and assurance regarding the quality of care the elderly are receiving from a broad range of care givers. The elderly will also be very concerned about the maintenance of their capital.

- ***Changes in organizational structures.*** New technologies, competition, changes in worker relations, and attempts to control risk have led to the creation of new organizational structures and relationships. There will be more alliances, joint ventures, and temporary organizations. Information technology enables employees to work away from the office. Work has become a 24-hour proposition and is conducted in any location. All of these changes lead to new information needs.

- ***Globalization of supplier, consumer, and capital markets.*** There will be increasing international trade and cross-border activities. Trade agreements involving NAFTA and the World Trade Organization have increased cross-border trading. Equity markets have become internationalized. There will be a need for international accountabilities.

- ***Education.*** Educational achievement in the United States continues to lag behind other developed countries, as evidenced by students' math and science scores. Consequently, the accountability of educational institutions will receive increasing attention.

The above trends signal the need for completely rethinking the information set that should come within the purview of accounting (and business) education — a conclusion shared by the AAA's Bedford Committee.

Threats

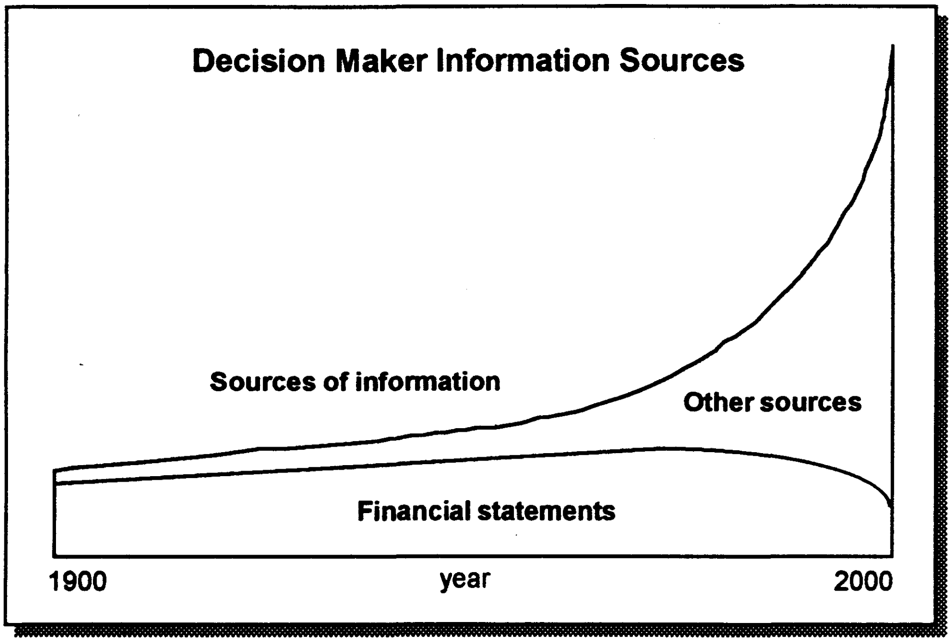
Several "danger signs" have become evident relative to the practice of auditing during the last decade that have reduced its attractiveness to prospective entrants to the profession:

- ***Market saturation.*** The total number of enterprises needing accounting and auditing services is stagnant (new formations being offset by consolidations and failures). As a result, total U.S. accounting and auditing revenues have been flat for the last seven years.

- ***Litigation risk.*** The explosion in litigation during the last 15 years includes much meritless litigation, but it also reflects, in part, consumer dissatisfaction with the current audit product.

- ***Technology substitution.*** Many tasks formerly performed by CPAs have become automated. Software is becoming ever "smarter" and will increasingly substitute for labor in the audit process.

- ***Loss of decision-information market share.*** As shown in the figure below, audited financial statements (which less well portray post-industrial enterprises) are less informative to decision makers while other sources of information, enabled by information technology, are virtually exploding. The result is that financial statements are providing relatively less of the total information to decision makers.



In addition to the above danger signs, the Committee, in its reports Megatrends Affecting Future Assurance Services, Effect of Information Technology on the Assurance Services Marketplace, and The Profession's Current Competencies, identifies other threats that may bear on academic programs in the future:

- ***Technology.*** Information technology (IT) is changing the paradigm for users to access information and to obtain assurance. Paper copies of financial statements and an accompanying audit report will be replaced by access to data base systems and continuous assurance regarding system reliability. IT is also leading to a power shift from producers to consumers. Consumers can now more easily make known their individual needs and demands for products and services. A one-size-fits-all financial reporting/auditor assurance model is quickly becoming obsolete.

- ***New competencies.*** Existing competencies in the profession might not be adequate for the delivery of new assurance services during the next decade. For example, CPAs will need substantial competencies in new information technologies that their clients will be putting in place.

Opportunities

The Committee has identified abundant opportunities for the profession to expand assurance services to new types of information used by a broad range of decision makers. Academics need to understand the range of information and assurance possibilities being considered by the profession in order to judge potential effects on curricula and research.

Extension of the Audit/Attest Function

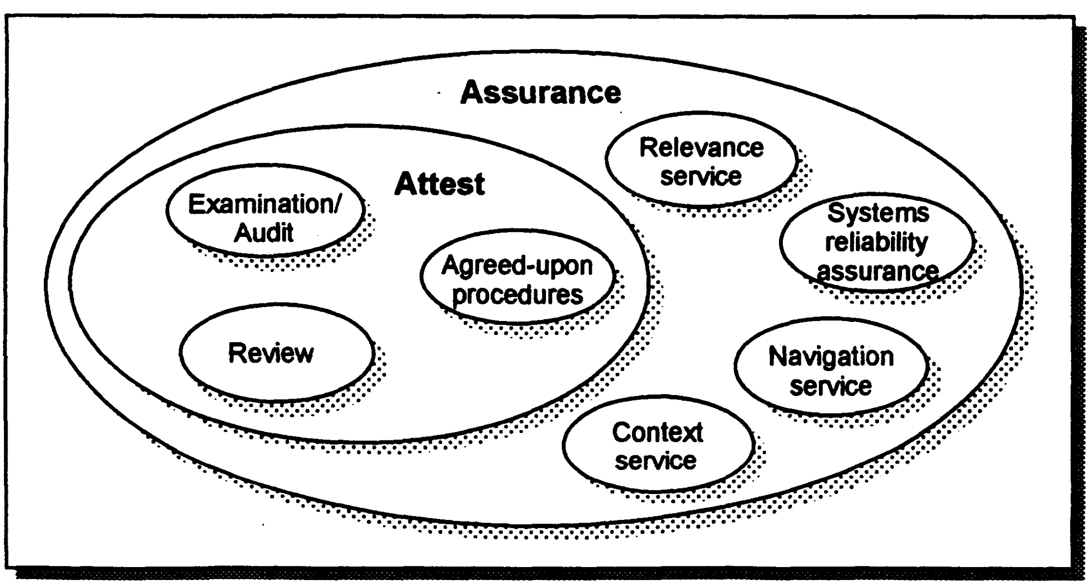
The Committee defined assurance as follows to broaden the profession's perspective:

> Assurance services are independent professional services that improve the quality of information, or its context, for decision makers.

The above definition involves the following aspects:

- *Independence* is central to the trust users place in CPAs.
- *Professional services* involve the CPA's professional judgment — an aspect that cannot be replaced by software or nonprofessional competitors.
- *Quality* can refer to either reliability or relevance of information.
- *Information* can be financial or nonfinancial, historical or prospective, discrete data or systems, internal or external.
- *Context* is the way the information is presented or the decision model in which it's used.
- *Decision makers* are the users of the information; the service is designed to be valuable to them in meeting their needs.

As the figure below indicates, this definition encompasses audit and attestation engagements and also accommodates many new service concepts.



Increasing the Value of Current Services

Audits will continue to be viewed as an effective means for reducing the cost of capital, improving liquidity, and promoting honesty in securities markets. To retain value and also to act as a credible platform for service extensions, the audit must undergo change. In Future of the Financial Statement Audit, the Committee examines current services and presents a set of detailed findings, conclusions, and recommendations. Items of interest to academics are briefly summarized as follows:

- ***Value-added must increase.*** Auditors need to place increased emphasis on delivering additional value from an audit through analysis and interpretation. By combining their unrestricted access to a client's affairs with knowledge of a client's industry, the auditor can gain insights regarding strengths, weaknesses, opportunities, and threats of great potential value to clients. This information should be systematically organized and presented to clients as a key "deliverable" of an audit. Rather than think of the audit "deliverable" as simply the audit opinion, the deliverable needs to be thought of as a customized set of communications.

- ***Timing will change.*** Audit timing will be affected in two ways. First, auditors will continue to be requested by public company preparers to give timely assurance to them on significant, non-routine transactions, which will eventually lead to continuous auditing as the norm. In turn, continuous auditing may lead to continuous reporting (internally and possibly externally on an exception basis) supplemented with an annual audit report. Second, users will likely demand more timely historical financial information, particularly regarding issues of financial distress, risks, uncertainties, and estimates, which will likely lead to more timely auditor involvement on these issues as well.

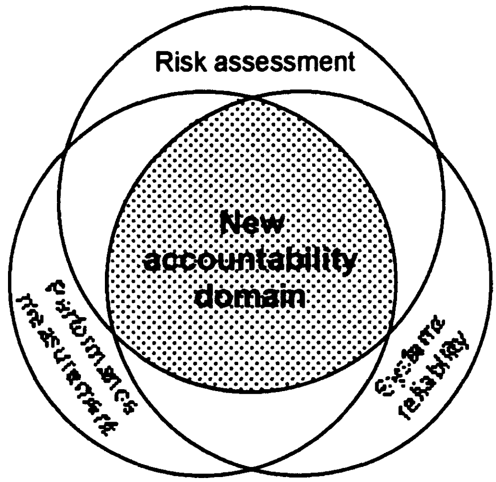
- ***Attack "tough problems."*** Users will expect auditors to do a better job detecting fraud and illegal acts; providing early warning of financial distress and going concern issues; and dealing with risks, uncertainties, and estimates. Auditors need to develop new weapons for detecting fraud, including electronic sensors, software agents, computer modeling, and triangulation (i.e., exploitation of the connectivity relationships among various entities in the preparer's value chain).

Extensions of Existing Assurance Services

The Committee has identified significant opportunities for the profession to provide assurance services in the following areas:

- Assurance on risk assessments.
- Assurance on business performance measurements.
- Assurance on information systems reliability.

CPAs presently are involved in limited aspects of these three assurance services in conjunction with the performance of an audit. The new services represent extensions (though *substantial* extensions) of the current activities. And the intersection of the three services represents a possible new accountability domain into which today's financial reporting/auditing model might migrate.



Features of each of these three assurance services are described briefly in the following paragraphs.

Assurance on Risk Assessments

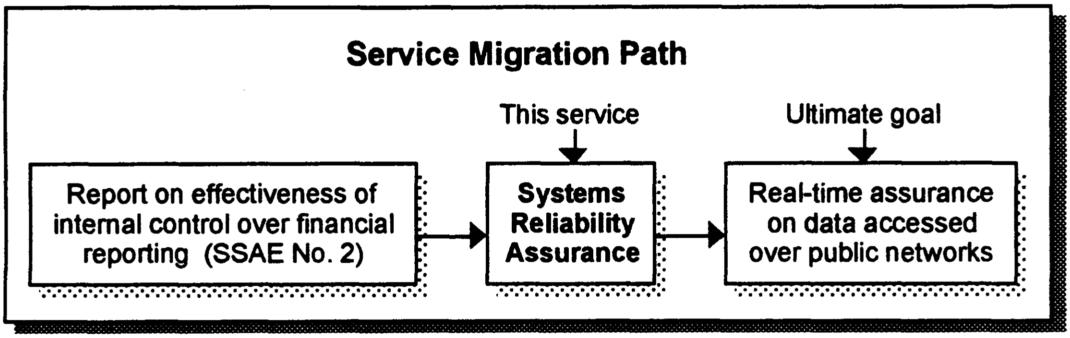
This service provides assurance that an entity's profile of business risks is comprehensive and that the entity has appropriate systems in place to effectively manage those risks. Business risk is the threat that an event or action will adversely affect an organization's ability to achieve its business objectives and execute its strategies successfully. Business risks may be classified as strategic environment risks (e.g., from substitute products or changes in customers' preferences or capital availability), operating environment risks (e.g., from lost assets or market opportunities, damaged reputation, or ineffective or inefficient business processes), and information risks (e.g., from the use of poor quality information for operational, financial, or strategic decision making).

Assurance on Business Performance Measurements

This service provides assurance that an entity's performance measurement system contains relevant and reliable measures for assessing the extent to which entity goals and objectives are achieved and/or performance has met or exceeded industry norms. In order to evaluate the performance of a business enterprise, decision makers need a comprehensive set of performance measures (both financial and non-financial) that encompass all major activities within the entity's value chain.

Assurance on Information Systems Reliability

This service provides assurance that an entity's internal information systems (financial and non-financial) are designed and operating in accordance with specified criteria. As the following figure indicates, this service represents a major step in a migration path that will eventually lead to real-time assurance on on-line data base systems.



Assurance on systems reliability involves two general services:

- ***Management service***. Reliability of systems that produce data for use by boards and management; this is a broader data set than merely that used for financial reporting.

- ***External service.*** Reliability of systems that produce financial reporting data used internally and externally, that is, contemporaneous data. Initially, this service would involve regular, periodic reviews. Eventually, it would evolve into continuous, real time assurance.

The COSO model and other existing tools for internal control evaluation provide a starting point for assessing systems reliability.

New Assurance Services

The Committee also identified significant opportunities for the profession to expand assurance services into three new areas:

- Health care performance measurements.
- Electronic commerce.
- ElderCare Plus.

Health Care Performance Measurements

Assurance on performance measures in health care would provide assurance to patients, employers, unions, and other customers of health care services that the quality of those services met specified criteria. The range of possibilities includes:

- Attesting to quality information reported by others.

- Accumulating and reporting on relevant data.

- Reporting on performance measurement systems and related controls.

Electronic Commerce

Electronic commerce assurance services involve the provision of assurance to various participants (consumers, retailers, credit card issuers, EDI users, network service providers, software vendors, etc.) in electronic commerce that the systems and tools in use are designed and functioning in accordance with accepted criteria for integrity and security. By the end of the next decade, most of the volume of business transactions is expected to be conducted electronically.

The range of possibilities for electronic commerce assurance services includes:

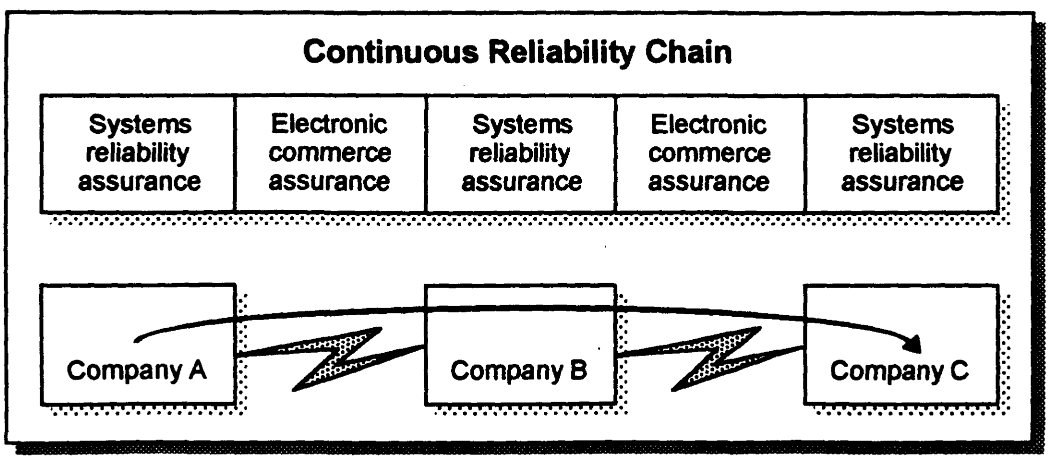
- Reporting on whether a value-added network provider's procedures conform to accepted criteria for integrity and security.

- Reporting on whether a particular software package used in electronic commerce has appropriate integrity and security controls.

- Reporting on whether organizations that are entrusted with encryption keys have appropriate security controls.

- Reporting to users of electronic payment cards that those cards have appropriate security features.

As shown below, electronic commerce assurance and assurance on information system reliability would work in concert to assure the reliability of information that flows within, between, and through entities.



ElderCare Plus

ElderCare Plus provides assurance to elders and their families that specified goals regarding care for the elderly are being met by various care givers. This service focuses on elder persons who want to live independently in their own homes. Conceptually, this service should be of interest to academics because it provides a concrete example of tailoring assurance services to individual consumer needs. The Appendix to Relevance Enhancement Assurance Services is a case example of assurance that might be given to an elder faced with the decision regarding choice of living arrangements.

The range of ElderCare Plus service activities includes:

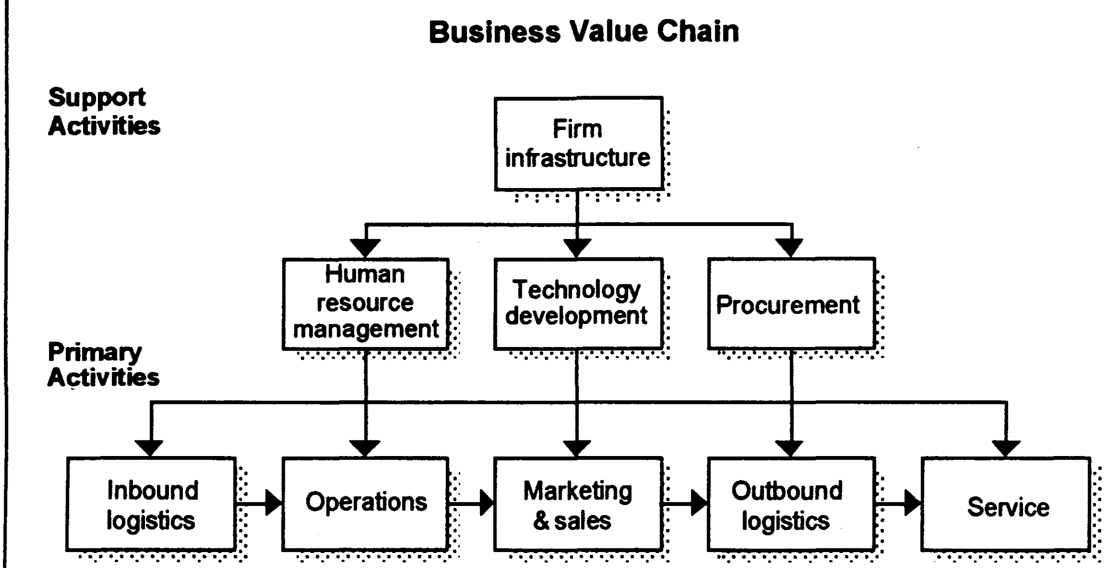
- ***Quality of care***. Inspection of evidence to determine whether care givers are meeting agreed-upon performance criteria.
- ***Review and supervision***. Review of routine financial transactions for appropriateness and supervision of investments and accounting for the estate.
- ***Investigation***. Investigation of unusual or unexpected situations and providing information for handling of those situations.
- ***Reporting.*** Reporting to elders and their families on activities of the month and the degree to which care givers are meeting agreed-upon criteria.

Framework for Identifying Opportunities

To assist CPAs in identifying clients' information needs and in developing assurance opportunities based on those needs, the Committee proposes a framework (business model) for analysis that draws upon value-chain ideas developed by Michael Porter (*Competitive Advantage*, New York: Free Press, 1985). Such a framework might also assist students to understand the range of information needed by managers, employees, and others involved in organizational activities.

Value Chain

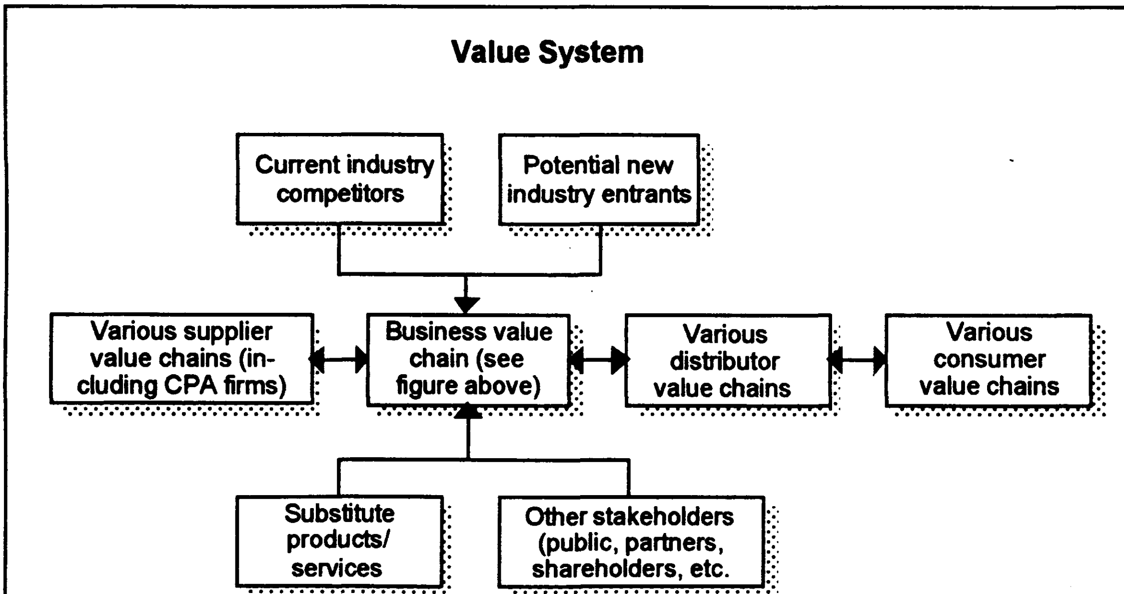
Value to a customer is the amount a customer is willing to pay (revenue) for a product or service provided by a business enterprise. In order to bring value to customers, business enterprises engage in a set of value-creating "primary" and "support" activities identified in the figure below. In the long run, an enterprise is successful to the extent that the total value it creates for customers in all of its value-creating activities exceeds the total costs of all resources consumed by those same activities.



Adapted from Porter, M. E., Figure 2-2, The Generic Value Chain, p. 37.

Value System

As shown below, an individual business enterprise operates within a larger value system involving other firms and individuals (including CPA firms), all of which influence the value ultimately delivered to the consumer.



Adapted from Porter, M. E., Figure 2-1, The Value System, p. 35, and Figure 1-1, The Five Competitive Forces that Determine Industry Profitability, p. 5.

The CPA's Expanding Role

The CPA's traditional role in a client's value chain has been rather limited. It has focused on a narrow set of risks (audit risk and its components), a narrow set of performance measures (historical financial measures), and a narrow view of information systems (internal historical financial transaction-based systems). The profession can greatly expand its traditional role in client's value chain by new services involving risk assessment, performance measures, and information systems reliability.

Action Plan — Academia

Through curricula changes and research, academia can play a key role in the profession's efforts to revitalize current assurance services and to offer new assurance services (also see: Elliott, Robert K., "The Future of Assurance Services: Implications for Academia," *Accounting Horizons* (December, 1995) pp. 118-127).

Curricula Changes

The Committee identified today's professional competencies and those that will be needed during the next decade. The profession will need these competencies:

- ***Customer focus.*** Assurance services are intended to benefit decision makers by improving the information used in their decision processes. Assurers need to gain a much better understanding of users' goals, objectives, and strategies and risks that prevent achievement of those objectives/strategies. An assurer also needs to understand user decision processes and how information enters (or should enter) into those processes. All of these requirements place special emphasis on an assurer's ability to communicate effectively with decision makers.

- ***Migration to higher value-added information activities.*** To provide more value to client/decision makers and others, assurers need to focus less on the conversion of business events into information (e.g., collecting, classifying, and summarizing activities) and more on the transformation of information into knowledge (e.g., analyzing, interpreting, and evaluating activities) that effectively drives decision processes. Assurers need to become more knowledgeable in user decision processes and various relevance enhancement activities associated with those processes, which requires greater competencies in the following:
  - Analytical skills.
  - Business advisory skills.
  - Business knowledge.
  - Model building (including sensitivity analysis).
  - Understanding client's business processes.
  - Measurement theory and performance measures.

- ***Information technology.*** The profound changes occurring in information technology will shape virtually all aspects of assurance services. As information specialists, assurers need to embrace information technology in all of its complex dimensions. They should understand how IT is transforming all aspects of business and how to use new developments in hardware, software, communications, memory, encryption, etc., in delivering assurance services. Finally, assurers will need to understand the risks involved in electronic commerce and the design features of such systems that assure security and integrity.

- ***Pace of change and complexity.*** Assurance services will take place in an environment of rapid change and increasing complexity. Assurers will need to be adept at pursuing a program of life-long learning and self study in order to maintain up-to-date knowledge and skills. Thus, the skills to "learn how to learn" need to be developed prior to entering the profession.

- ***Competition.*** Growth in new assurance services will depend less on franchise/regulation and more on market forces. Assurers need to develop their marketing skills — the ability to see clients' latent information and assurance needs and rapidly design and deploy cost-effective services to meet those needs — in order to effectively compete for market-driven assurance services.

The findings, recommendations, and initiatives of the Accounting Education Change Commission are beginning to diffuse through higher education, which is moving the curriculum for accounting majors in many of the competency directions identified above. However, certain critical needs stand out, namely, better understanding of user/decision making needs for information, more emphasis on relevance enhancement activities, and increased attention to skills in information technology.

With respect to audit education in particular, curricula should encompass a much broader range of assurance services. Audit education also needs to include a much wider and deeper exposure to information technology, including information design reliability issues (preventive controls) and ways to exploit information technology to detect fraud. Finally, and perhaps most significant, audit education needs to adopt a customer focus, which not only would increase the emphasis given to understanding user needs, but also would also shift emphasis toward delivery of relevance enhancement services and away from the traditional emphasis on reliability enhancement.

Research

Research is needed in the following areas to strengthen the current audit:

- ***Fraud detection.*** New weapons that exploit the power of new developments in information technology (IT) are needed to improve fraud detection. Research is needed that explores possibilities for using electronic sensors, software agents, computer modeling, and other IT tools in the detection of fraud.

- ***System design reliability and continuous assurance.*** User demands for more timely information and related assurance will gradually move the focus of audits away from the reliability of data (at a point in time) to the reliability of the systems that produce the data. Increased emphasis on systems reliability means that increasing attention must be focused on the role of prevention controls and away from detection controls. In short, research is badly needed to find ways to enhance "reliability by design."

Numerous research opportunities also exist for supporting the profession's planned movement into new assurance areas, including the following:

- ***User/decision maker needs.*** Although the Special Committees on Financial Reporting and on Assurance Services investigated user needs, their explorations just scratched the surface of this complex problem. Much yet remains to be discovered regarding users — their needs, the nature of their decision processes, the role of information in those processes, the need for assurance regarding that information, and the role of information technology in meeting those needs.

- ***Relevance enhancement.*** The Committee began to analyze user decision processes to identify relevant information that supports those processes. Research is needed that extends the Committee's analysis by identifying prototype decision models used in practice and the relevant information that supports the use of those models.

- ***Measurement and reporting criteria.*** Research yielding a better understanding of user needs for information leads naturally to research on criteria to measure and report that information. For example, the new assurance services developed by the Committee deal with many new types of information for which measurement and reporting criteria do not yet exist. Specifically, measurement and reporting criteria are needed for the following new services:

    - ***Risk assessments*** — criteria for identifying risks for assessing likelihoods and consequences.

    - ***Business performance measurement*** — criteria for assessing performance for all of the major value-creating activities within an enterprise.

    - ***Information systems reliability*** — criteria for assessing the reliability of all major internal information systems.

  - *Electronic commerce* — criteria for assessing the integrity and security of electronic commerce.

  - *Health care performance measurement* — criteria for assessing the quality of service provided by care givers.

- ***Assurance methods and reports.*** Research is needed that explores new concepts and methods for conducting new types of assurance services and for reporting results. For example, new concepts of "assurance risk" are needed that will provide a framework for determining the amount of assurance effort required on particular engagements. Also, new concepts of reporting need to be developed that will effectively communicate the nature and extent of the assurance effort and assurance findings.

Academic research in these areas would provide valuable inputs to AICPA task forces charged with responsibility of providing guidance to practitioners in each of these new assurance service areas.

Action Plan — AICPA

The Committee's recommendations to the AICPA that bear upon academic matters are the following:

- ***An infrastructure for identifying services.*** Services will be identified by the new Assurance Services Committee (ASC), which has already been created. After identifying a new service and making a preliminary assessment of its promise, the ASC will assign it to a task force for development. Business plans will be developed by the task forces and communicated to the firms, and the task forces will identify what other actions might need to be taken at the AICPA level — for example, accreditation programs, performance guidance, or measurement and reporting criteria. Timely academic research on measurement and reporting criteria would be a valuable input to the ASC's deliberations involving the development of new assurance services.

- ***Education.*** The AICPA will also assist the transition to new assurance services by additional efforts in education. For example, it should develop additional CPE course materials in risk assessment, performance measurement, elder care, and information technology. Academic programs need to be reviewed to assess whether appropriate conceptual underpinnings are in place to support the profession's training efforts.

Government Perspective

CPAs in government will have to adapt to a changing environment and changing information needs. Although the public sector differs from the commercial sector, CPAs in government can find insights on how to adapt in the work of the Special Committee on Assurance Services.

The Committee has not developed a separate governmental perspective because of the wide range of functions performed by CPAs in government. To view the perspective most relevant to you, consider your own role as follows:

- If you engage CPAs to provide assurance services to government, select the Industry perspective.

- If your role is to produce assurance services within government (for example, as an internal auditor or inspector general), select one of the public accounting perspectives. Based on the size of your department and its function, you might find the Small CPA Firm, Medium CPA Firm, or Large CPA Firm perspective most relevant to you.

Produced by the AICPA Special Committee on Assurance Services

Major Themes

Study the most important themes running through the research base the Special Committee on Assurance Services Committee developed during its two years of work.

Customer Focus

Who are your potential customers, and what do they and current customers need? How to identify needs for assurance services and what customers are willing to pay for. How to adopt a customer focus and why it's critical.

Competitive Environment

New assurance services are not reserved to CPAs alone (the way audits of financial statements are). Other providers are already providing information-improvement services. CPAs must have market savvy to prosper in this more competitive environment.

Information Technology

New information technology is radically altering the way business is done and the products and services organizations provide. It also affects every aspect of assurance services because of the way information is created, stored, processed, communicated, acquired, and used. An understanding of information technology will permit you to identify and capitalize on many new assurance service opportunities.

New Assurance Opportunities

Starting with the information needs of decision makers, the Committee developed a new service model aimed at improving the quality of information, or its context, for decision makers. These services can be sold only if they create more value for decision makers than they cost. The Committee developed new services with enormous market potential. The Committee also developed a model that CPA firms can use to probe their own marketplaces for unmet assurance needs and turn these latent demands into profitable new services.

Assurance Methods

Assurance methods build on the historical approach to audits and attestation services. However, they go beyond standardized reports to consider the information and assurance needs of specific customers. This requires a different focus and customer-oriented procedures. In addition, new technologies offer the potential to improve the quality of information in ways not possible until only recently.

Measurement and Reporting Criteria

GAAP are the measurement and reporting criteria for financial statements. However, as assurance services reach the more varied needs of decision makers, new criteria will be needed. They will have to be more sharply targeted to the needs of individual users, and they will have to be developed more promptly in a competitive market in which CPAs are not the sole providers of services or criteria.

Competencies

CPAs have strong competencies that can be readily enhanced to deliver many new assurance services. But some of the services will require entirely new competencies. Where will they come from? New hires? Retraining existing CPAs? Learn how to prepare yourself and your firm for the new services.

Independence

Decision makers rely on CPAs because independence differentiates our assurance from that of other providers. This is a huge market advantage. The existing independence principles were developed for financial-statement audits. You can review the Committee's independence model for new assurance services.

Legal Liability

Legal liability has deterred many CPAs from exploring new service opportunities. However, new assurance services need not be fraught with excessive liability risks. See the Committee's recommendations for assessing and mitigating legal risks at the profession-wide level (choosing services to develop), the firm level (structuring policies and procedures), and the individual engagement level (deciding whether to accept, how to contract, and how to perform).

Entry Barriers

CPAs must be concerned about barriers to entering new markets. These include lack of marketplace "permissions" for new services, lack of measurement and reporting criteria for new information types, missing competencies, and self-imposed barriers (such as lack of customer focus, narrowly defined self image, and the rules and regulations the profession imposes on itself). The Committee has recommendations to address each barrier.

Produced by the AICPA Special Committee on Assurance Services

Customer Focus

The 1990s have seen a dramatic shift in power from producers to consumers throughout the commercial sector. Where once newspaper editors decided what stories would be available to readers, individuals can now log onto electronic news services and decide for themselves what news is important. Consumers' choices in automobile options were once limited by what local dealers offered; now buyers can decide the features they want and manufacturers produce the cars their way.

Consumers are empowered by access to vast amounts of information previously unavailable to most people. Modern information technology provides individuals with a wealth of up-to-date information on virtually any topic at any location. Trends suggest even greater availability as technology becomes more powerful. As a result, modern consumers have adopted an aggressive and adversarial attitude. They demand that suppliers satisfy their demands or they will find solutions elsewhere.

It is unreasonable to expect that CPAs will be exempt from this phenomenon. Yet, few commercial entities are as disconnected from ultimate consumers as CPAs. Technical literature tends to focus on CPA inputs, not the benefits to the ultimate user. In most cases, the literature doesn't even mention the user.

In this world of empowered users, the concept of a one-size-fits-all product, such as the output of many traditional CPA services, is rapidly becoming obsolete. The profession needs to focus on customers' needs and provide services that each customer considers valuable for its own use.

Adoption of a customer focus requires a major shift in attitude: Ask a CPA who the audited financial statements are for, and, as likely as not, you will get the reply, "The client, of course!" But, in most cases, audits are done because they are demanded by third party users, such as banks or investors. Because the form and content of financial statements and audits are determined by rule, CPAs have had little ability to customize audits for individual users. As CPAs move into assurance services or other unregulated segments of practice, it becomes more important to focus on customer needs, since customers have choices among information providers.

Who Are Customers?

Customers are people who make decisions based on information. They actually use the CPA's output to make decisions. In many cases, customers are clients. But often, the customer is not the client who pays for the service, but, rather a third-party user that demands the information that the CPA provides. It is important to focus on the ultimate information consumer, rather than merely the client, because it is the ultimate consumer that creates demand for the service.

Types of Information Users and Their Needs

Decision Types

Decision Makers	Investment	Finance	Strategic	Consumption	Production	Welfare	Social	Political
Institutional investors								
Analysts								
Individual investors								
Creditors								
Suppliers/customers								
Senior management								
Other employees								
Boards/audit committees								
Community/society								
Government/regulators								

The Committee adopted the term "customer" to describe the ultimate consumer of the service. Some people object to the term "customer" because, to them, the term denigrates the CPA's professional relationship. They suggest that the term implies an overly commercial relationship. The Committee intends no such implication; assurance services are professional services. Yet it wanted a term that connotes an active participant whose needs have to be satisfied. The term commonly applied to the information recipient — "user" — implies a passive role. A user merely uses what is provided; a producer-driven concept. It is important that the profession adapt to decision makers' needs, not expect decision makers to adapt to what the profession provides.

What Customers Want

Each customer — decision maker — has his or her own set of needs. The Committee interviewed decision makers to obtain an understanding of the types of decisions they make, the information they use to make decisions, and their satisfaction with the information they use. The results are summarized in Analysis of Customer Interviews. Although no broad summary can take the place of determining individual needs, the Committee has identified some trends common to many of the decision makers it spoke to.

Decision makers recognize that financial data are only a part of the information they need to make effective decisions. Customers asked for more information on —

- Risks they face
- Performance to see if goals are being achieved
- The quality of the systems they use.

Another, latent, need is more subtle: The need for information intermediaries. As information and the number of sources of it increases, decision processes become more complex, and decision makers need additional assistance in using information. Numerous complex information choices must be made by a decision maker at each step of a decision process, and no hard, fast rules exist for making most of them. Consequently, a decision maker can benefit from the assistance of an information intermediary who understands decision processes and who specializes in assessing and reporting on the relevance (and reliability) of information used in those processes.

Look at CPAs' services from the customer's point of view. The primary output of accounting and auditing services is *periodic historical cost-basis financial statements*. But, if you are making an important business decision based on information would you rather have:

Periodic	or	Real time/continuous data?
Historical	or	Prospective data?
Cost-basis	or	Value-based data?
Financial	or	Comprehensive (including relevant nonfinancial) data?
Statements	or	A database with capability to extract the information you want, format it the way you want it, and "drill down" on important data for further analysis?

Clearly, the information in financial statements is useful. But, if you preferred any of the alternatives in the right-hand column, you recognize that users want additional information. The goal of assurance services is to provide it. The ultimate assurance service for customers is real-time, continuous information to monitor the risks and performance results relevant to them. This is the Committee's vision of the future audit.

Becoming Customer-Focused

The Committee recognized the importance of a customer focus when it crafted the definition of assurance services. It defined assurance services as

> Independent professional services that improve the quality of information, or its context, for decision makers.

Customers — decision makers — are featured prominently in the definition. This recognition is critical to delivering new, value-added services. In contrast, the descriptions of other professional services are generally focused on the CPA's output and are silent on its actual usefulness for decision makers.

The Committee identified and developed new assurance service opportunities it believes are responsive to the stated needs of customers and the future needs the Committee inferred from existing megatrends. It focused on how to take the valuable competencies and traits demonstrated in audits and use them in new services that provide value to customers.

A key to providing new assurance services is a strong knowledge of the customer's needs. In many of the assurance services identified by the Committee, the customer is the client. Many CPAs, as a result of experience with a particular client, already have a knowledge of their clients' needs. Often, however, CPAs don't collect this information systematically or consider how they might provide additional, value-added services to fill the needs.

A simple way to bring discipline to the needs-gathering process is to use appropriate questionnaires on every engagement. The Committee developed an example questionnaire, which appeared in the July 1996 *Journal of Accountancy*. Other methods include client discussion groups and surveys.

When considering needs, though, remember that clients don't want services; they want solutions to their problems. So the CPA needs to understand the real problems to design a useful service. Often, mere listening is not enough because the client might focus only on symptoms. The real problem might be unstated. It might be necessary to delve further to gain a full understanding before suggesting a service to meet the client's needs.

The service should result in a useful deliverable. Often, the appropriate deliverable is not merely a report. Instead, the service should provide customized sets of communications useful to the needs of customers.

Considering the needs of *third-party* users is more difficult. It might require the CPA to infer needs of customers he or she doesn't deal with directly. The needs might be confirmed through discussions with potential users, focus groups, or analysis of similar services being provided by others. This market is more difficult to gauge because, in many cases, customers don't contract or pay for the service directly. Potential clients must be convinced that paying for a service to be used by others results in a benefit to them.

Competitive Environment

To compete effectively, your firm needs to understand its competitive environment. It needs to understand existing and future competitors and how each will compete to provide what the market values. This is particularly important when the environment is *changing*. How your firm competed in the past might be ineffective in a new environment.

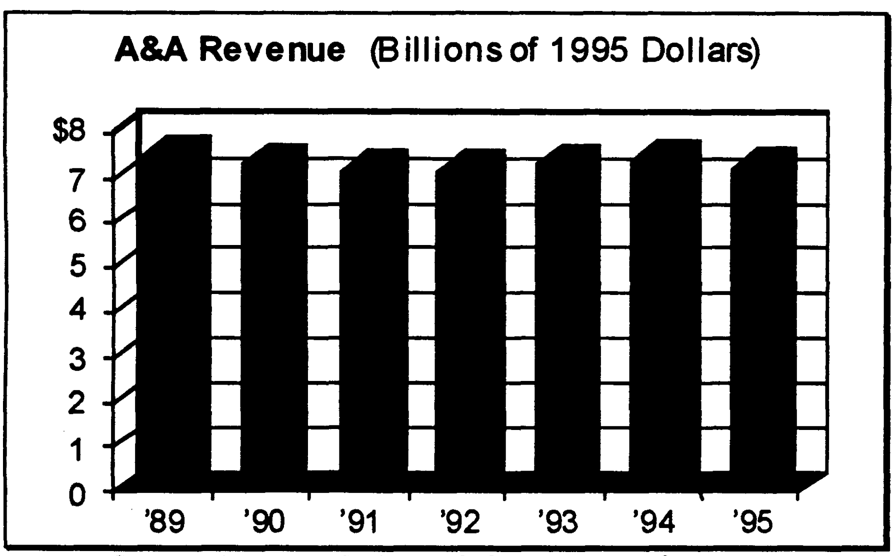
This section describes some of the factors that will affect how your firm competes in the future. Each firm should consider the general material in this section in light of its own competitive environment, size, market, competencies, and strategy.

Two relevant competitive environments are evolving separately. Your firm might face different challenges in competing for:

- Traditional CPA services (accounting, auditing, and tax).
- New assurance services (described by the Special Committee on Assurance Services).

Traditional CPA Services

The market for traditional CPA accounting and auditing services will become more competitive. Revenues have been flat for the past 7 years on an inflation-adjusted basis. Price competition among CPAs will continue to hold down revenues.



Sources: *Accounting Today* and U.S. Department of Labor
(The data shown are for the 60 largest firms.)

Additional pressure will arise from:

- *NonCPAs.*

When services aren't reserved to CPAs by regulation, other providers will enter the market. In some cases, these new entrants will be well-capitalized, sophisticated organizations whose primary business is not accounting and auditing. They might enter the market to establish distribution channels for their primary businesses, such as selling investments or other services.

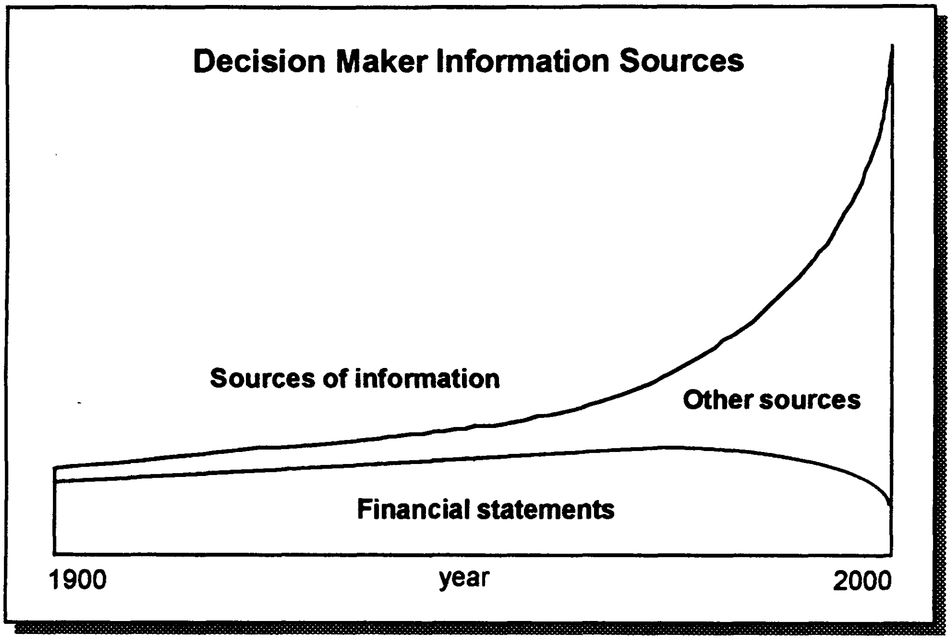
In addition, nonCPAs might successfully challenge the regulations that restrict certain services to CPAs, creating even more competition from nonCPAs.

- ***Increasing client sophistication.***
  Sophisticated clients often have employees who are CPAs or other financial specialists who develop internal information. Even small companies increasingly will be managed by professional owner/managers. These entities may attract more skillful financial managers, who will become more proficient in the preparation of historical financial information. As clients become more sophisticated, they might be able to perform for themselves the kinds of data summarization and analysis they used to engage CPAs to perform.

- ***Technology substitution.***
  Software will continue to improve and will compete effectively with CPAs providing some low-end types of services, such as preparation of noncomplex 1040s and simple bookkeeping and financial statement creation. As the software becomes cheaper, more powerful, and more user-friendly, it will attract business away from CPAs.

- ***Decreased demand by users.***
  The traditional output of accounting and auditing and tax work has lost market share for decision information. Users look to many other sources for information on which to base their decisions. As they turn to other sources, they are less likely to insist on traditional CPA services.

  Users are already demonstrating their willingness to make decisions on different types of information. For example, rather than insist on audited or even reviewed financial statements many lenders make loan decisions based on computerized "credit scoring" techniques.



New Services

New services will be market-driven. Demand for them will not be created by statute or regulation. And the provision of these services will not be limited to licensed CPAs. CPAs will have to provide value and compete with a range of nonregulated potential information providers, resulting in a changed competitive battleground.

Competitors might be:

- *Highly capitalized.*
  Large competitors might be able to raise large amounts of debt or equity capital to finance leading-edge technology acquisitions, advertising, or creation of large service networks.

- *Unconstrained by CPA rules.*
  Many states regulate everything a CPA does — even services for which licensing isn't required. Accordingly, they face regulation that nonCPAs don't contend with. A firm's competitive posture might be affected, limiting, for example, the types of engagements it can accept, the types of fees it can charge, or the types of reports it can issue.

- *Nimble.*
  CPAs have traditionally been deliberate and focused on standards. New competitors, on the other hand, might be more nimble to exploit new opportunities. They might have no appreciation for the types of standards that CPAs tend to rely on; they might be willing to take more risks.

- ***Subject-matter experts.***
  CPAs who move into new assurance services can transport important assurance skills to new areas unrelated to accounting, auditing, or tax. Competitors, on the other hand, may have deep experience in a specific subject area, although less experience in testing assertions, reporting on services, or other skills that CPAs bring. In some cases, users might more highly value the subject-matter knowledge.

- ***Information providers with large databases or installed systems.***
  Competition to provide information will come from those with access to public or proprietary databases. They also might come from organizations that supply computer systems or other services.

- ***Certified in other disciplines.***
  Some organizations provide certifications that sound like CPA but aren't. Some of them might try to erect regulatory barriers to exclude CPAs from providing new services.

Competing in this Environment

To compete effectively in this new environment, CPAs will have to leverage their competitive advantages:

- ***Independence.***
  The CPA profession has a reputation for independence based on its tradition and on the rules in its Code of Professional Conduct. This should be valued highly by those relying on the CPA's report. While other information providers may claim to be objective, the infrastructure of rules ensuring that the CPA has no interest in the data other than its usefulness should provide a competitive advantage to CPAs.

- ***Access to clients.***
  CPAs have unparalleled access to all levels of an organization — from the production floor to the executive suite, which provides a broad understanding of an organization and its needs. This understanding, combined with a position of trust gained from a history of successful engagements, can be a strong competitive advantage.

- ***Concern for the public interest.***
  CPAs services have long been lodged in the public interest. The criteria and standards used by CPAs have been directed to ensure that the CPA is objective and the output of the engagement is useful and is what it purports to be.

- ***Quality control systems in place.***
  CPAs practice in organizations with quality control systems to ensure that services are competently delivered. These systems are often peer-reviewed, providing the public with independent assurance about the quality of the CPA's practice. Even when a specific assurance service is not peer reviewed, the control consciousness of a firm with a philosophy of quality control provides some comfort about the firm's commitment to quality.

As CPAs move farther from their traditional services, they face questions about their competence to provide services. While these potential barriers should not be understated, they can be overcome by:

- Gaining the necessary competencies, through education or training of CPAs or by recruiting subject-matter experts.
- Demonstrating that the new services is a natural extension of more traditional CPA services.
- Successfully completing engagements and developing a reputation.
- Being the best or most cost-effective supplier of the service.

The Effect of Information Technology on Assurance Services

The role of information in business is being radically altered by computer technologies, with direct effects on all organizations and how they do their work. Practitioners should understand the nature of the changes, what they mean for customers, and what they therefore mean for the profession.

The Information Technology Revolution

Enabling technologies ensure that the revolution will continue with no clear end in sight. New applications will remake the practice environment.

Opportunities for New Assurance Services

New opportunities will be derived from new types and amounts of data, a revised notion of timely assurance, the increased importance of systems and controls, and the reach of IT into all decision processes.

Needed Actions

New competencies must be built; technology should be harnessed to interact more continuously with customers; and the capital will have to be found for IT investments. The AICPA should both speed up the production of guidance needed for coping with electronic information and should monitor legislative and regulatory initiatives on electronic commerce.

The Information Technology Revolution

The Big Picture

We are in the midst of the IT revolution, not even nearly toward the end of it. No organization will be untouched by the changes, and every business that wants to retain its viability must, at a minimum, learn, reconsider, and adapt. The profession is in the information business, and computer and telecommunications technologies are transforming every aspect of the production, storage, and use of information. The transforming power of the technologies is recognized by the stock market, journalists, economists, and politicians, and everyone knows much more lies ahead. That is why the Committee's IT study looks forward to the next ten years.

In thinking through how information technology can influence the assurance function, it is useful to focus on the sequence of change. Basic enabling technologies, such as the logic processor in a computer, form a foundation that makes possible new software applications ranging from accounting packages to business simulators. In turn, these new applications allow businesses and other organizations to operate differently. They may use the enabling technology and applications to develop new products, such as financial derivatives, or new ways of providing products and services, such as through on-line order-entry systems. All this constitutes change in the practice environment calling for adaptation.

One important adaptation, for example, is new procedures and tools needed for performing audits and other assurance services. Another is responding to opportunities for new services.

Enabling Technologies

There are four basic categories of hardware components. Although interrelated, each has its own evolutionary path, and each is on a fast-rising curve plotting the ratio of increasing capability to decreasing unit cost against time.

- ***Processors*** oversee the functions of the computer and process the data (e.g., adding numbers, comparing sensor readings, issuing instructions to factory equipment, and preparing reports).

- ***Communications capability*** (sometimes called "bandwidth") is a measure of the capacity of the transmission line or other device connected to a computer to transfer data.

- ***Memory*** refers to the electronics for storing information for future reference. Types of memory vary according to how the information is stored, how much can be stored, and how quickly a computer can retrieve it.

- ***Sensors*** capture information about the physical world. For example, a sensor may monitor the temperature of a piece of metal being machined, the flow rate of a fluid through a pipe, or the stock number and price code of a roll of paper towels at a supermarket. Sensors can feed computer systems data about things and events for specific purposes.

Related Technologies

New forms of computing are on the scene and being developed that are close to being new enabling technologies. *Parallel processing* hooks together hundreds or thousands of individual processors into a network of processors that act jointly, thereby reducing the time needed for enormous computing tasks. The *neural network* is an artificial intelligence application that can create new knowledge. Neural networks learn by inducing patterns from examples. New examples are categorized based on the patterns from the database of prior examples. Neural networks can be used to identify loan applicants who are high credit risks or health problems based on patients' symptoms, for example.

Sophisticated ***software development tools*** now speed up the tasks and increase the reach of software development. ***Code generators*** rely on a set of relatively simple specifications to generate the programs ("code") necessary to store, access, and manipulate information. The "objects" in ***object-oriented programming*** are each a building block of modular programming instructions that can be used to assemble a larger program. Combining such "objects" with data allows even greater programming efficiencies.

Software agents can retrieve, analyze, and produce information. Sometimes operating together with sensors, software agents can be used to monitor activities or data and identify items that exceed predetermined ranges of acceptable values or tolerances. They may also be used to identify unusual patterns or relationships in comparable data. More sophisticated software agents will launch and dynamically develop applications to interrogate databases and process information.

Security technologies continue to improve. Encryption algorithms mathematically encode information, and database protection schemes limit access to authorized people. These and other capabilities will provide higher degrees of security and data integrity, but additional techniques are needed to ensure the authenticity of information.

The information-technology capabilities cited above and declining unit costs open virtually limitless possibilities for applications, which in turn enable organizations and individuals to do business differently. The result is a changing practice environment.

Applications Change the Practice Environment

Applications have already transformed the practice environment, and significant changes represent trends with greater consequences for the future.

Information technology is ***accelerating a shift in power from the producer to the consumer***. Consumers can communicate with one another, develop common views, and express them jointly with the aid of information technology. Meanwhile producers can proactively learn more about consumers' preferences. Both features help orient producers toward satisfying customers to a greater degree than in the past.

In financial reporting, enhanced customer power is already evident because of the proportion of equity owned or controlled by institutional investors. However, taking a long view, information technology will transform financial reporting much more in the same direction. The change will be propelled by users' deployment of information technology to enhance their capacity to benefit from information and by preparers' deployment of technologies to improve the reliability of information.

Data access will replace reporting. By reducing the cost to collect, store, and manage information and by connecting information producers and consumers via networks, information technology will make it possible for companies to move from transmitting or reporting information to investors and creditors to allowing them access to corporate information. Companies will allow on-line users defined, limited access to selected portions of databases.

Electronic commerce will grow — from Electronic Data Interchange to marketing on the web to still-to-be-invented electronic relationships between customers and suppliers. And with the growth of electronic commerce, will grow associated information problems — for example, assuring accuracy, authenticating parties, protecting privacy, and creating trust. Ultimately, all buyers and sellers will be affected by this trend. Information regarding specific business transactions and accountabilities may be broken into pieces residing in two or more of the organizations. Audit tools will be reshaped to cope with the new manner of conducting business and recording transactions.

Organizations will have within their power mechanisms to improve the reliability of their systems and will find it necessary to do so (because of their growing involvement in electronic commerce), ***raising the level of importance of systems and preventive controls***. They will rely on design, on sensors, on software agents, and on a chosen level of control redundancy. The more frequent use of these devices will help merge the concepts of detective and preventive controls into the umbrella concept of real-time error prevention/detection. Traditional manual reviews of transactions, balancing, and reconciliation are inadequate if not impossible for electronic commerce.

Information technology facilitates the development and operation of ***"virtual organizations,"*** and they are likely to become more frequent in the future. A virtual organization is created when two or more entities jointly act to pursue a mutual business objective. Much of its existence could be in the world of cyberspace and so short-term as to seem ephemeral beside our economy's traditional, venerable corporate entities. A single entity may be involved in intricate alliances with a variety of business partners, some short-term and others of longer durations. The result is more complex business arrangements, different information needs for investors in the participating entities, difficult accounting issues, some of which arise because the entity is transient (e.g., related party transactions, going-concern assumptions), and needed consistency among the information reported by the partners in the virtual entity to outside parties.

Information technology will continue to make ***new behavioral demands*** and to call for investment. Education of some sort as well as other arrangements to guide behavior will continue to be necessary to maximize the effectiveness of intranets, internal databases, and business processes that are computerized or computer-assisted.

Information technology will change relationships between assurers and both users and preparers. While the auditor is off-site, though electronically connected, on-site software tools will gather evidence in complex environments in conjunction with similar devices deployed by clients, or the auditor will rely on the client's devices. Electronic sensors and software agents introduced at key checkpoints throughout the preparer's set of business activities will automatically identify transactions, events, and/or relationships and notify auditors for their immediate attention. Auditors will use software agents to search for unusual or corroborative patterns, not only in the preparer's database, but also in the databases of entities reciprocal to the preparer in transactions of audit interest.

Users with access to preparers' databases will communicate directly with preparers and auditors about their needs for particular levels of reliability relative to particular items of data, and the articulated levels will then guide the preparation and auditing of particular data items. Audited data included in databases or made available to users by preparers will include auditors' "reliability tags" that will identify the level of assurance associated with each data element.

Information technology will make ***new competitors*** possible, not only for new assurance services, but also for traditional engagements. Software that replaces tasks performed by assurers reduces hours worked. And when a client's system produces more reliable data because of information technology, the work needed to assure reliability is reduced. When audit software embeds experience and expertise, competitors can obtain it and use it to make inroads on CPAs' audit market share. Banks could one day audit their creditors, and computerized internal audit functions could reduce the work needed for an audit opinion.

New assurance services opportunities created by information technology will be open to competitors who have information-technology skills and track records of achievement. Unlike audit work, there will be no protected franchise. Moreover, needs for capital investment could favor competitors.

The profession's development of new methods to provide traditional services will benefit the development of methods for performing new services. In this way, the profession will be better able to take advantage of opportunities for new assurance services.

Opportunities for New Assurance Services

Assurance services are independent professional services that improve the quality of information, or its context, for decision makers. It follows from this definition that new service opportunities must arise from the changing needs of decision makers. Information technology is changing those needs and therefore creating opportunities for new services.

Decision makers will have ***needs for new types of information***. The needs are already in evidence. For example, research shows unmet information needs, and questions have been raised about inadequate treatment of intangible assets in today's financial reporting. Since information technology is a driving force in creating information assets, it is contributing to service needs for assurance on the relevance and reliability of information on intangibles.

Information technology is also making available increasing volumes and varieties of data. Decision makers will need intermediaries who can ***assist in navigating the seas of data***. These intermediaries will assist users in selecting or developing the appropriate software agents and framing the right statements of needs.

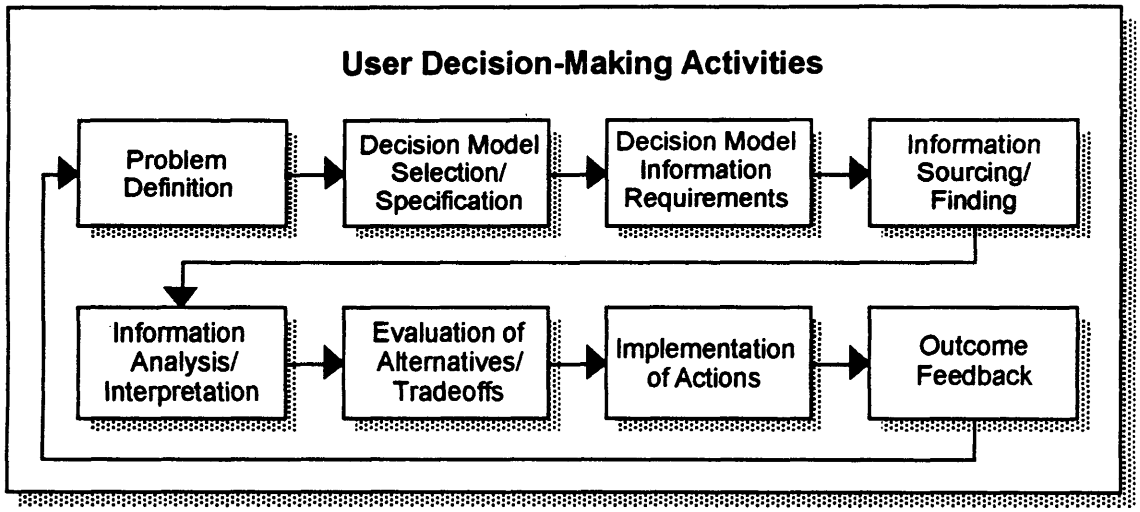
With the growing use of information technology in the decision-making of networked workers, organizations have greater needs for ***assurance on systems and controls***. Users of information to assess entities' prospects have a similar interest in the quality of systems and controls. Moreover, since users' needs for information to assess entities' prospects increasingly encompasses nonfinancial data, the scope of the systems and controls whose reliability is of interest to users will broaden.

The growth of electronic commerce will create different needs for assurance on systems and controls. The participant will need to know whether the system meets the requirements of electronic commerce (e.g., on-line identification, authentication, digital signatures, anonymity, integrity, common definitions, transaction functionality). The profession will need well-defined criteria against which to assess the quality of systems and controls as they continue to evolve.

The notion of ***timeliness*** will change, because users will need assurance at points in time other than just at the end of a year or quarter. Some users may require "continuous audits" of a broad data set, others "just-in-time audits" of key transactions or data, and still others mixes of the two. When users' real-time access to databases becomes routine, they will need continuous data assurance.

Information system assurance services will evolve from point-in-time assurance, with the time point prior to the decision to just-in-time (real-time), or continuous assurance. For example, the user might be able to assume that an information system is operating effectively unless some sort of warning is posted. Just-in-time assurance would be consistent with a user's real-time access to data contained in the system. It will be possible because of improvements in the reliability of systems from massive redundancy, software reliability, sensors, and software agents.

In the environment created by increased information-technology capabilities, skilled intermediaries can provide ***services that improve decision-making information in all the component processes of decision making***. This is because the leverage a decision-maker gains from information depends on the degree to which all decision processes are effective, not just those involved in obtaining information. The full scope of users' decision-making processes is diagrammed below.



Many decision-makers are likely to require assistance in ensuring that each step of this process occurs as intended — that their definition of the problem, choice of decision model, and identification of data sources are appropriate, for example. Other decision-makers will rely on information intermediaries to maximize the effectiveness of the decision-making processes. Relevance services would be prominent in any full set of potential services derived from the decision processes — selecting the most useful data to solve the problem, for example. These services are analyzed in detail in Relevance Enhancement Assurance Services.

The practice environment created by the IT revolution and the new opportunities it will generate call for action by the profession. Needed actions specific to information technology are discussed next.

Needed Actions

The profession's ***information-technology competencies will have to broaden and deepen*** to provide traditional services as well as to provide new assurance services. Real-time auditing, for example, will require a far better understanding of systems, data access methods, and systems reliability. If the profession is going to deliver a full set of information intermediary services, it will need expertise in feedback loops and decision models and the skills to manage, correlate, and analyze data from a multitude of information technology sources. (For the full set of competencies needed by the profession, see Competencies for the Future.)

The profession needs two-way communication with its customers. The AICPA's website on the Internet is a useful beginning. The next step for most CPA firms is to become wired to their clients and their clients' other service providers, such as law firms and banks. Interaction with clients and influential parties should be expanded to cover more than just e-mail. Clients might be allowed to participate in bulletin boards on the CPA's local area network (LAN), access firm newsletters electronically, and enter dialogue with the CPA firm on issues such as tax law and other legislation that affects the client's business.

The profession will have to ***find the capital to keep up with its information-technology needs***. The technological infrastructure needed to provide assurance services in the information-intensive future will require significant development and continuing maintenance. Costs will mount for hardware and networks, operation centers, software development, and, perhaps, joint ventures and alliances.

The AICPA should ***speed up the process of defining guidance*** for dealing with electronic evidence in attest engagements and providing assurance on other financial and nonfinancial electronic information. The AICPA should also be prepared to ***monitor and influence legislative and regulatory initiatives on electronic commerce*** in the public interest and in the interests of practitioners who provide assurance services. The rapid growth of electronic commerce will inevitably result in abuses, which in turn will prompt attempts to regulate content, content providers, carriers, and other participants in the process. Many of the regulations and safeguards might involve watchdog or assurance requirements. (The Committee's full set of recommendations to the AICPA are given separately.)

Produced by the AICPA Special Committee on Assurance Services

New Assurance Opportunities

Assurance services are a class of CPA services founded in the independent verification tradition. The Special Committee on Assurance Services believes that assurance services represent a important direction for the CPA profession and a potential growth area for CPAs if properly identified and delivered. The benefit users derive from CPA association with audited financial statements can be realized in other areas in which information is either unavailable or unreliable.

The Concept of Assurance Services

The concept of assurance services provides a background discussion of the characteristics of assurance services and how the services related to existing services.

New Assurance Services Developed

New assurance services identified summarizes the specific services the Committee identified and developed.

The Concept of Assurance Services

The Committee defined assurance services as:

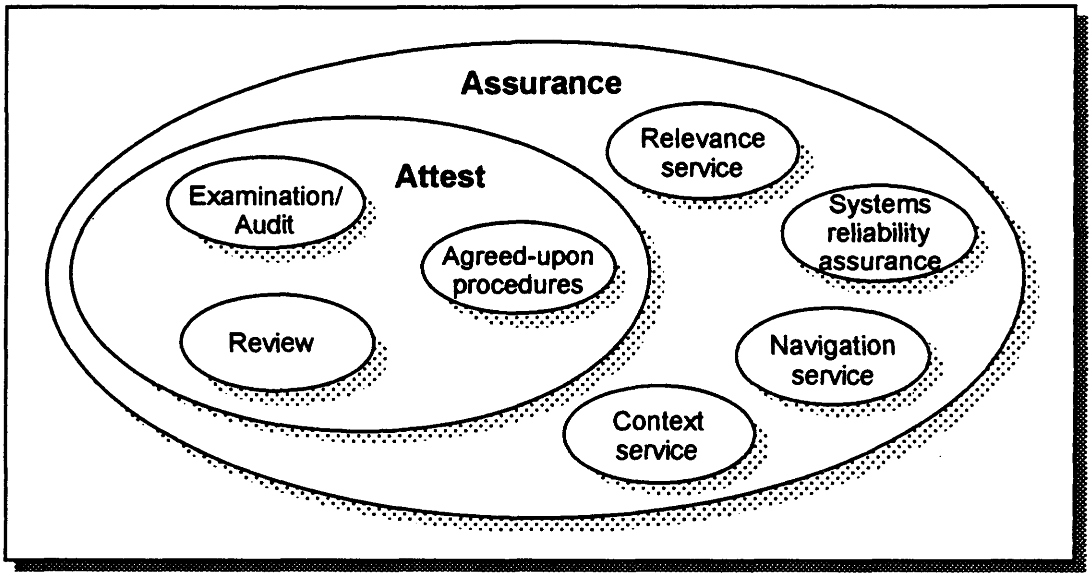
> Independent professional services that improve the quality of information, or its context, for decision makers.

Assurance services can improve the reliability or relevance of information for decision makers.

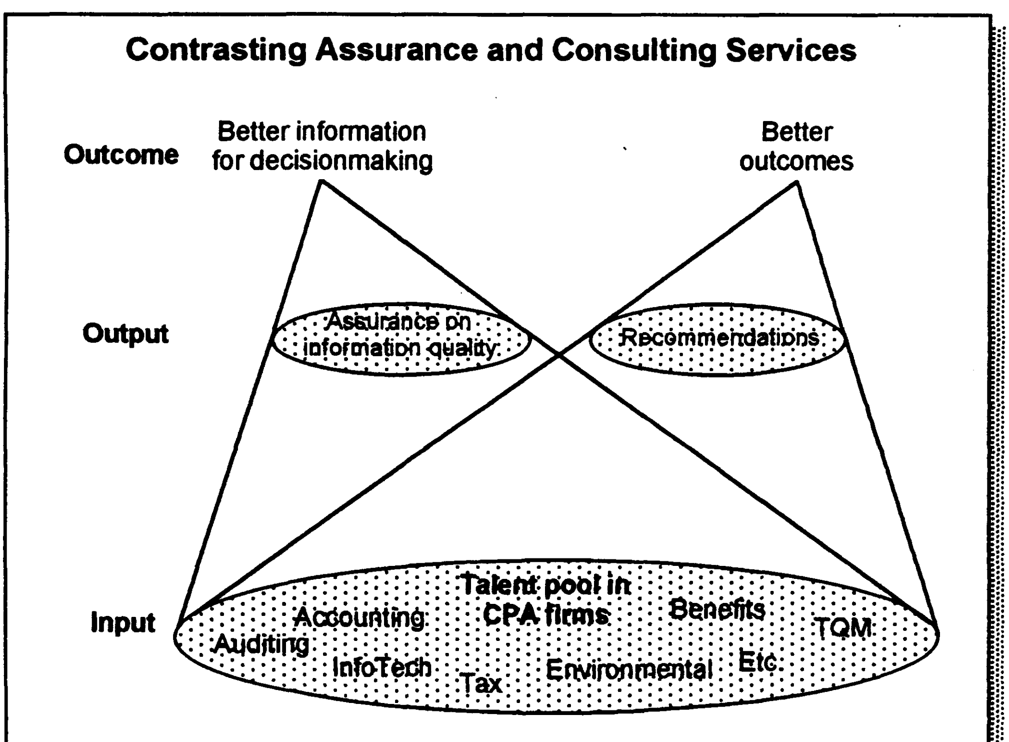
The range of information on which CPAs provide services is potentially vast. Information might be financial or nonfinancial, historical or prospective, comprise data or relate to systems, or be internal or external to the user.

The CPA can issue a report, but no new standards require one (existing standards require reporting for some services, such as audit or attestation services, that fall under the assurance umbrella). The concept of assurance services is described in detail in Definition and Interpretive Commentary.

Assurance services encompass audit and other attestation services, but include other, nonstandard, services as well. Unless the services fall under the AICPA's attestation standards, assurance services do not require written assertions.



Assurance services differ from consulting services in two ways: (1) they focus on improving information rather than providing advice and (2) they generally entail situations where one party wants to monitor another (even when they work for the same company) rather than the two-party arrangements common in consulting engagements. Nonetheless, assurance services and consulting have many similar elements, such as common roots, skills, and client relationships. In fact, many assurance services could be structured as consulting, and vice versa. The primary purpose of the engagement is the determining factor.



From the standpoint of standards, the distinction between assurance and consulting is of little importance. The concept of assurance is important primarily because it provides the foundation for a cohesive line of services that are a natural outgrowth of traditional CPA services, based on the CPA's historical stock-in-trade — independence and professional judgment applied to the relevance or reliability of information.

Adding Value

Assurance services are intended to provide value for decision-makers. Assurance services are not mandated by statute or tradition; they are purchased only when they are worth more than they cost. The services add value when they help the decision maker provide value to his or her own customers or when they tell the decision maker something important about his or her own company that he or she didn't already know.

The CPA can also add value as an information intermediary who understands decision processes and specializes in assessing and reporting on the relevance of information used in those processes.

Decision makers are the ultimate "customers" for assurance services. They are the ones that actually use the services, whether or not they actually pay for them. Some of the existing needs that customers have expressed are:

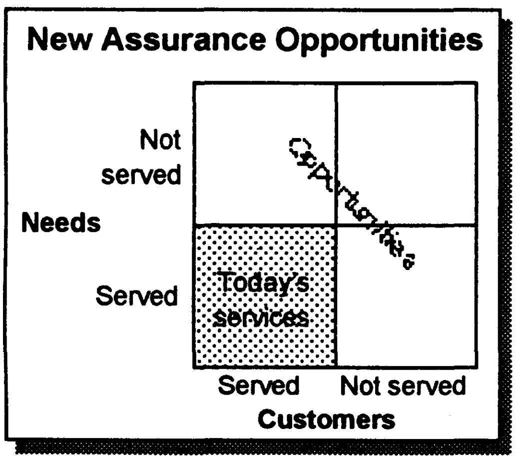
Customer Need	Potential Customers
Better information about business risk	Board of directors Management
Information about product quality	Individuals
Performance measures	Senior management
Information quality reported to board	Board of directors Institutional investors
Quality of processes and controls	Board of directors Senior management Investors
Information about strategic plan execution	Board of directors Institutional investors
Information on government performance	Public

The Committee interviewed decision makers to identify their current needs. The needs identified by the Committee are summarized its analysis of customer needs.

Future customer needs will be affected by both the existing needs and trends that will affect the need for information or assurance in the future. The trends that are expected to have the greatest impact on future needs for information and assurance are: information technology, corporate structure changes, investment capital flows, additional calls for accountability, aging of the population, and declining quality of education. The trends and the opportunities and threats they imply are described in Megatrends Affecting Future Assurance Services.

Future Opportunities

In thinking strategically about new assurance opportunities, it's important to focus on customers (that is, people who use information for decision-making purposes) and their needs. A customer might be the same as a client, but need not be.



Customers and their needs can be arrayed as above. There are opportunities in each quadrant of the matrix. The unshaded area represents economic white space that CPAs can develop and provides a general direction for future assurance services. The opportunities in the four quadrants are discussed below.

- ***Served needs/served customers.***
  These services represent CPAs' existing markets. Opportunities in this quadrant are discussed in detail in the Future of the Financial Statement Audit.

- ***Served customers/unserved needs.***
  Services in this quadrant represent a vertical extension of current services to new situations. They enhance existing offerings by providing additional, value-added services to clients CPAs already serves. CPAs can enter these markets through the position of trust that CPAs have earned with existing clients.

- ***Unserved customers/served needs.***
  This quadrant represents opportunities to provide audit-like services to new types of customers. In these services the CPA transports the skills and approaches used in today's audits into new circumstances.

- ***Unserved customers/unserved needs.***
  This area is both the most risky and the most exciting. It consists of needs, not currently served by CPAs or other assurance providers, that appear to be large potential markets in the future. By identifying and exploring these opportunities now the profession can "brand" them as CPA services. These markets are more difficult for individual practitioners and firms to enter. The Committee has developed plans for additional AICPA involvement to develop these markets and create public identification of them as CPA services.

New Assurance Services Developed

Overview

The Committee developed six new services that fall in the economic white space indicated in the diagram above. Some address the needs of existing customers; others are for new customers. Some are based in the types of data CPAs traditionally report on while others focus on new types of data.

The services have common elements as follows:

	Risks that need to be controlled	Relevant performance measures	Assurance about systems
Internal customers	Comprehensive risk assessments	Business performance	Systems reliability
External customers	ElderCare Plus	Health care effectiveness	Electronic commerce

The Committee developed business plans for each of these services. Each is discussed further in New Assurance Services.

Specific Services

Business Performance Measures

Decision makers need meaningful and reliable performance measures as a basis for decisions. This service provides assurance that an entity's performance measurement system yields relevant and reliable measures for assessing the extent to which entity goals and objectives are achieved.

The CPA can provide assurance on an organization's financial and non-financial measures used to evaluate the effectiveness or efficiency of its activities. These performance measures can be used for assessing performance (for example, whether the activities are being performed properly and whether they are leading to the accomplishment of the strategic goals and objectives) at any level within an organization (for example, geographic region, specific division, specific unit). Performance measures can also be used to evaluate how the organization is performing in relation to others in the same industry.

There is a spectrum of performance-measurement services that the CPA can provide, including:

- Assessing the reliability of information being reported from the organization's performance measurement system (for those organizations that have a performance measurement system).
- Assessing the relevance of the performance measures (for those organizations that have a performance measurement system).
- Identifying relevant performance measures (for those organizations that do not have a performance measurement system).

The fees for such services — based on their value to customers — could range from an amount less than the financial-statement audit fee (for providing assurance on certain reported results) to an amount that far exceeds the audit fee (for identifying measures and designing and implementing a system). Some practitioners are now providing some of these services for amounts that are double and triple the size of the recurring audit fees.

Health Care Effectiveness

CPAs can provide a range of assurance services on performance measures for the use of external decision makers. External reporting of performance measures has many potential applications in both the commercial and public sectors. External users need information on accountability, whether the entity has effectively used available resources, and whether it is deserving of further investment. For example, public education institutions might be called on to show that they are adequately educating students. Ventures might be called on to show that common resources have been effectively deployed. Insurance companies could show that claims are handled appropriately. Recently an airline company provided independent assurance to customers about its safety procedures.

An apt example of this class of service is reporting on health care effectiveness. In the past, individuals' health services were provided primarily through fee-for-service arrangements involving employer-paid health insurance companies or government-sponsored programs (Medicare and Medicaid). Recently, the trend has changed: Managed care networks are replacing the traditional fee-for-service model. This environment creates a new set of risks and rewards for health care providers. Since revenue is fixed, their economic incentive is to reduce service costs, possibly by reducing services delivered. Thus, customers (individuals and their representatives, such as unions and employers) are concerned that their health care needs will not be met effectively.

CPAs can assess and report on the quality of care delivered by health care providers. Measurement criteria for this service need to be defined, but they should be based on consumers' interests, for example, mortality, length of stay, and patient satisfaction. The services could be provided for hospitals, HMOs and similar operations, managed care firms, physician groups, and individual practitioners.

The potential market is large. Consumers want to reduce the uncertainty related to their expenditures. If the cost of uncertainty reduction is similar to that in financial markets — in the range of 10 basis points on transaction flows — a potential annual market of $1 billion ($1 trillion in annual health care expenditures x .001) is implied.

Risk Assessments

Management and those charged with oversight of an entity's operation need to consider the risks faced by the entity. Risk assessments are vital for evaluating overall performance of management, including performance in monitoring the environment for possible future developments. Independent assessments of existing risks faced by an entity, as well as a comprehensive assessment of potential risks and the firm's systems for dealing with risks would be of considerable value to the owner/manager of a small business trying to meet stated objectives, or to a corporate director wishing to fulfill a fiduciary obligation to stockholders.

CPAs can provide independent comprehensive assessments of existing and potential risks and an organization's systems for dealing with risks. Management and those charged with oversight of the entity's operation need timely information on risks the entity faces.

Entities face a variety of risks: strategic environment risks, operating environment risks, and information risks. Risk assessment services can include

- identification and assessment of primary potential risks faced by an entity.
- independent assessment of risks identified by an entity.
- evaluation of an entity's systems for identifying and limiting risks.

Fees in the range of 10 to 20 percent of the financial-statement audit fee might be possible for continuing risk assessment services done on a periodic basis. Fees for ad hoc risk assessments and design of new risk assessment and control systems could be several times the annual audit fee.

ElderCare Plus

Increasingly, people are living to ages where assistance is needed in remaining in their own homes or for institutional care. In the past, they normally relied on members of their families, many of whom lived close by, for this assistance. But, now, younger adults often find it necessary for both spouses to work outside the home to provide an acceptable standard of living. As a result, the younger generation does not have the time available to care for aging parents. And as our society has become mobile in following job opportunities, many family members now live far away from their elders as the latter begin to require care and assistance.

CPAs can provide a valuable service to family members by providing assurance that care goals are achieved for elderly family members no longer totally independent. The service provides third parties (children, family members, or other concerned parties) with assurance that the needs of the elderly person to whom they are attached are being met in a professional, independent, and objective manner. This service relies on the expertise of other professionals, with the CPA serving as the coordinator and assurer of quality of services based on criteria and goals set by the family.

The services include:
- Procedures to measure care providers' effectiveness in meeting goals established by the family.
- Consulting and facilitating services.
- Direct service provision.

The total annual market for this line of services is estimated between $2 and $7 billion depending on the number of people who take advantage of the service and the monthly fees they are willing to pay.

Systems Reliability

Organizations need on-line access to real-time, updated, reliable information. Despite the enormous quantities of information created and its ready accessibility, managements and boards of directors are concerned about whether the information they use for decision-making is timely and reliable. In other words, is the information a satisfactory basis on which to predicate important decisions?

Outsiders who rely on entity-created information — other than annual audited financial statements — have concerns about the reliability and timeliness of the information they use. They will demand more timely reporting including, in some cases, access to the entity's database. But, without CPA involvement, they will have no assurance about the reliability of the data they use.

Systems reliability services comprise two related services: a management service and an external service.

In the management service the CPA assesses the quality of systems that produce data for use by boards and management, This data set is broader than that used for financial reporting. Much of the information used in employee and management decision-making does not come from the systems that produce financial statements studied as part of the audit. The systems might involve financial, market, resource, or process issues. The CPA can assess the client's internal systems to determine if they provide reliable information for managing the business to achieve the organization's goals.

In the external service, the CPA assesses the quality of systems that produce financial reporting data used internally and externally. Initially the service would involve regular, periodic reviews. Eventually, it would evolve into continuous, real time assurance.

It is difficult to estimate the potential size of the market. A market in the billions is implied if companies spend only an additional 1 percent of the total expenditures on information systems to ensure system quality. The trends suggest that the importance of this area will increase over time because of the increasing dependence on information systems.

Electronic commerce

The growth of electronic commerce requires the reduction or elimination of the barriers that companies normally employ to bar unauthorized outside access to critical company information and resources. Literally hundreds of persons outside of the company may be able to authorize or influence changes in production levels, shipments of goods, and funds transfers. The new system of commerce requires new concepts of control, authorization, confidentiality, and anonymity.

Participants in electronic commerce will not only require assurance that their own systems are secure, but also that appropriate controls exist in supplier and customer organizations to limit access to authorized users and to protect an organization's confidential information. In addition, the broad use of electronic commerce introduces the need for new privacy controls.

CPAs will provide assurance and other services related to electronic commerce. Users will require assurance that (1) their own systems are secure and (2) appropriate controls exist in supplier and customer organizations to limit access to authorized users and to protect the company's confidential information. The broad use of electronic commerce also introduces the need for new privacy controls.

Some of the potential abuses and concerns caused by this new environment include:

- Intentional attacks.
- Transmission failures.
- Lack of authentication.
- Loss of trust.
- Theft of identity.
- Controls that are only cosmetic.
- Inappropriate use of individual and organizational profiles.

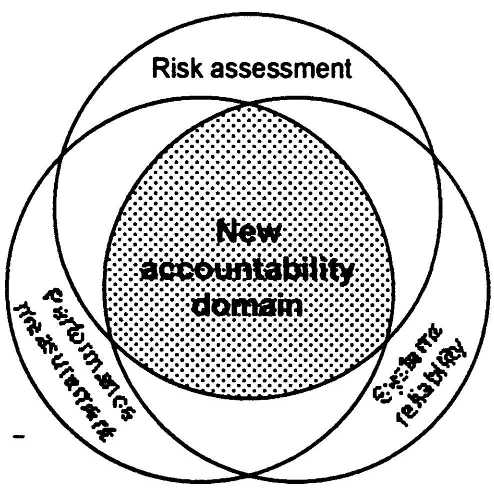
The total estimated annual market for these services is between $500 million and $5 billion.

Combining the Services

Each of the services taken separately suggests attractive opportunities. But, combined they can provide substantial benefits to users.

For example, the two services that deal with systems — electronic commerce and systems reliability — can provide users with confidence in the entire chain of electronic information. For example, assurance about systems in both customer and supplier would be the subject of systems reliability engagements by those entities' CPAs; the electronic link between them could be the subject of an electronic commerce engagement.

The three internal services — risk assessments, performance measures, and systems reliability — can provide a roadmap to the audit of the future. Current criticisms of the existing reporting model are that the data are not the most relevant and that information arrives well after transactions have taken place. The three services taken together suggest an environment in which the CPA reports on a continuous basis on information measuring how an entity performed relative to its relevant risks.



Other Identified Services

The Committee also identified the following assurance service opportunities:

Compliance with company policies

The CPA provides assurance with respect to specific company policies, such as codes of conduct, human resource policies, treasury functions, or operating procedures. The policies might be based on internal control concerns, laws, or regulations. Or, they might be based on the company's philosophy or as a preventative approach to potential risks.

Internal auditing services

The CPA provides internal audit services to either supplement or supplant internal audit departments. The service is intended for entities that, because of their size or the nature of their operations, either do not maintain their own internal audit departments or lack resources for specific types of engagements.

Trading partner accountability

The CPA provides assurance that the client's trading partners have appropriately fulfilled their responsibilities. For example, a client might collect royalties or rents based on sales made by another entity. Or it may contract with suppliers that promise to charge their lowest prices (for example, advertising) or use specific billing practices (for example, law firms).

ISO 9000 certification

The CPA certifies companies' compliance with ISO 9000 (or similar) standards. ISO standards are intended to ensure a level of quality control implying the company's products are high quality. Services might deal with quality systems in design and development, production, installation and servicing; production and installation; or final installation and test. ISO 14000 is expected to be issued in the near future to deal with environmental matters and will result in additional assurance opportunities.

Mergers and acquisitions

The CPA provides assurance for the purchaser/acquirer in mergers and acquisitions (sometimes called "due diligence" work). The CPA can provide insights into business risks, the appropriateness of accounting methods, amounts reported, values, adequacy of systems and controls, and other information. The engagement might be similar to agreed-upon procedures, when the client specifies the CPA's procedures. Or, the engagement might be less structured and the CPA communicates findings orally.

World-Wide Web information

The CPA reports on the reliability or usefulness of information contained in web home pages. The CPA's report resides on-line along with the information and could be accessed when the information in the home page is accessed. The level of assurance could represent standard attestation-type assurance, vary based on the amount paid, or be customized, incorporating feedback loops from users.

AIMR conformity

The CPA tests and reports on whether investment managers' performance summaries are presented in conformity with standards of the Association for Investment Management and Research. Those standards deal with how investment managers measure the returns they disclose to fund sponsors and the public. They deal with such things as determining how the entity to be measured is determined and how returns should be calculated.

Other Services

The Committee conducted a survey of nontraditional services performed by large and medium size CPA firms. The firms identified hundreds of services, provided both to existing customers and new ones. Although the information on individual services is not detailed, the information needs implied might suggest additional assurance services your firm might perform.

Creating Your Own Services

The Committee developed a model that firms can use in considering customer needs and identifying, designing, and delivering services. It discusses considering whether the potential services fit a firm's strategy and strengths, sizing the potential market, and factors to consider in creating the service and getting customer feedback.

Produced by the AICPA Special Committee on Assurance Services

Assurance Methods

The delivery of new assurance services, while incorporating many of the verification methods traditionally used in audits and attestations, will need to exploit information technology (IT) capabilities and tools to compete effectively. These same IT capabilities and tools may also be used to improve the current audit. In addition, entirely new methods need to be developed for enhancing the *relevance* of information used by decision makers. The Special Committee on Assurance Services has identified these assurance methods themes for CPAs to consider.

Impact of Information Technology
IT provides numerous opportunities to improve audit/assurance methods involving both current and new assurance services.

Relevance Enhancement
New methods need to be developed for providing relevance enhancement assurance services.

Current Services
Improvements need to be made in the delivery of the current audit/attest function.

Impact of Information Technology

In Effect of Information Technology on the Assurance Services Marketplace, the Committee identifies numerous opportunities to improve audit/assurance methods. Indeed, the profession has no choice but to adapt its methods to the information technology (IT) environment. Traditional services will not be delivered in traditional ways. Moreover, the experimentation and development of new methods to provide traditional services will benefit the development of methods for performing new services.

Sensors and Agents
Electronic sensors and software agents (some of which may be owned or controlled by the CPA) may be introduced at key checkpoints throughout the preparer's set of business activities. Sensors will lead to early and automatic identification of transactions, events, and/or relationships that are unusual and therefore demand immediate consideration. CPAs may use audit software agents to search for unusual patterns and/or corroborative patterns in transactions, not only in the preparer's database, but also in the databases of those entities that are reciprocal to the preparer in transactions of audit interest (e.g., the client's sale is the reciprocal party's purchase). The CPA would provide general parameters to the software agent, such as industrial, macro-economic, and technological factors, but give the software agent "discretion" to add other factors or information it

deems appropriate to the constantly changing model.

Computer Models

Computerized audit programming tools will continue to evolve (see: Robert K. Elliott, "Confronting the Future: Choices for the Attest Function," *Accounting Horizons*, September 1994, pages 112-114). Advances will include:

- Models that "learn" from procedures actually executed (e.g., the results of tests of controls reveal unexpected errors, which leads to revisions of control risk, which, in turn, leads to audit program changes).

- Models that include artificial intelligence/expert system components, which deal with specific audit judgment areas, such as loan loss reserves and inventory obsolescence.

- Models that are networked across a portfolio of audits, which allow for more complete assessments of inherent risks by industry.

- Models that represent, at a high degree of detail, the business activities of the client and permit the assurer to create an information expectation against which to assess the reliability of information contained in the producer's database.

Information Dual

Another approach would be to develop a producer's "information dual," which is an informational representation or model of the producer's physical and knowledge-work processes. If the "information dual" faithfully captures those processes, it can be used to assess, among other things, the reliability of the information being reported by the producer with respect to those processes. The "information dual" would provide the auditor with a highly sophisticated tool for performing an analytical review of a producer's data.

Relevance Enhancement

In Relevance Enhancement Assurance Services, the Committee identifies the role that practitioners might play in enhancing the relevance of information used by decision makers in solving their decision problems.

Relevance vs. Reliability

Traditional audit and attest engagements have focused primarily on improving information quality through enhancement of reliability and have left relevance issues to institutional standard setters. But, in today's fast changing environment, characterized by exploding information availability and rapid emergence of vast numbers of newly empowered decision makers, the traditional approach is no longer adequate for two major reasons.

Institutional Approach to Relevance

First, the institutional approach essentially reflects a "one-size-fits-all" perspective. Although such a perspective often enhances comparability, it may reduce relevance, which requires a customer focus. What's needed is a new approach to relevance issues that adopts the perspective of particular decision makers and examines relevance in light of their specific decision problems. Second, the institutional approach, because of its time-consuming "due process," often does not provide a timely solution to a particular decision maker who may need to act before "due process" has run its course. In short, relevance issues need to be addressed by practitioners in a way that is more responsive to individual decision makers and in a time frame that is more consistent with their particular decision problems. New methods need to be developed by which the practitioner enhances relevance for a decision maker.

Decision Analysis Approach to Relevance

A step-by-step decision process is used as a framework in the table below to identify various types of information that are used in decision making and to give examples of assistance that assurers might provide to enhance the relevance of such information. The examples of assistance that might be provided by assurers suggest the following needs for new assurance methods:

- ***Environmental scanning***. Assurance methods need to be developed to systematically scan the environment (external and internal to the entity) surrounding the particular decision-making process of interest.

- ***Definition/construction of measures***. Assurance methods need to be developed for defining and constructing the numerous measures that arise in the context of specific decision problems (e.g., process outputs, outcome feedback, model parameters, and independent variables).

- ***Sourcing/finding data***. Assurance methods need to be developed for sifting through the "sea of data" that potentially could be used to construct the various measures of interest.

- ***Sensitivity analysis***. Assurance methods need to be developed for conducting sensitivity analysis as a means of evaluating various information alternatives available to a decision maker.

Table

Types of Information Used in Decision Making and Examples of Assistance Provided by Assurers

Decision Making Activity (steps)	Types of Information Used*	Examples of Assistance Provided by Assurers
1. Problem definition	• Decision maker's objectives • Environmental information • Process monitoring/diagnostic information • Outcome feedback information (see step #8 below)	• Identify appropriate environmental information that needs to be continuously monitored for changes in conditions that may require action. • Develop appropriate process output measures that may be used to identify the need for action • Develop appropriate outcome feedback measures that may be used to improve future decisions (see outcome feedback, below)
2. Decision model selection/specification	• Information on extant decision models • Information useful in inventing/designing alternatives	• Identify information that may be useful in defining objectives • Identify information that may be used to develop alternative courses of action • Identify information that may be used to define environmental factors • Identify appropriate "off-the-shelf" decision models that may be used to address a decision problem
3. Decision model information requirements	• Information used to develop definitions of model parameters and independent variables • Information about concepts that are related to the parameters and independent variables and are used in defining those elements • Laws and theories used in developing operational definitions of parameters and independent variables	• Develop operational definitions of model parameters and independent variables
4. Information sourcing/finding	• Various data bases drawn upon in constructing measurements of model parameters and independent variables	• Identify data that may be used to construct appropriate measurements of model parameters and independent variables
5. Information analysis/interpretation	• "Data about data:" • Reliability tags • Preparer definitions • Restrictions on intended uses of data	• Identify limitations in the data used to construct measurements of model parameters and independent variables and determine the ramifications of those limitations on the decision maker's model

Table

Types of Information Used in Decision Making and Examples of Assistance Provided by Assurers

Decision Making Activity (steps)	Types of Information Used*	Examples of Assistance Provided by Assurers
6. Evaluation of alternatives/tradeoffs	• The decision model itself • Information about areas of the simplified decision model wherein significant suppression of known phenomena has occurred • Sensitivity analysis results	• Perform sensitivity analysis regarding various information alternatives available to the decision maker
7. Implementation of actions	• Decision variable settings for the optimal solution • Information that links decision variables to implementation activities and task performance • Periodic measurements that monitor implementation	• Develop appropriate measures for monitoring the progress of implementation
8. Outcome feedback	• Comparative information on desired outcomes vs. actual outcomes • Diagnostic information on deficiencies in the information used in the entire decision-making process	• Develop appropriate outcome feedback measures that may be used to improve future decisions

*Note that, at each step in the decision-making process, information used in previous steps is also assumed to be available for use in the present step. Thus, the information shown in this column is *cumulative*.

Current Services

In Future of the Financial Statement Audit, the Committee has identified specific improvements that need to be made by the AICPA and firms in various methods involved in the current audit/attest function.

AICPA

The AICPA should consider guidance that would improve methods in the following areas:

1. ***The "tough problems."*** To make further progress on the tough problems (i.e., fraud and other illegal acts, financial distress and going concern, risks, uncertainties, and estimates) that may arise in an audit of historical financial statements, additional guidance is needed in the following areas:

   - *Fraud and other illegal acts.* New audit standards clarify the performance level that must be met in an audit. Two needs remain. First, more audit emphasis needs to be placed on prevention. Guidance is needed on how information technology and systems design can prevent fraud and illegal acts and how client systems should be evaluated from this "prevention" perspective. An understanding of preventive controls is the key to becoming associated with (providing assurance on) the content of data bases. Second additional guidance is needed on *how to detect* significant occurrences of fraud and other illegal acts. Such guidance might take the form of a comprehensive set of case studies that explain how such events have actually been detected. Guidance is also needed as to how information technology can most effectively be brought to bear on this problem, not only in detecting occurrences, but also in understanding automated systems and how they should be designed to prevent occurrences in the first place.

- ***Financial distress and going concern***. In coordination with any actions taken by the FASB, the AICPA should consider whether:

  - SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties*, is effective in providing adequate information about risks and uncertainties.

  - SAS No. 59, *The Auditor's Consideration of an Entity's Ability to Continue as a Going Concern*, should be enhanced to address situations in which there is financial distress, but there is no substantial doubt about the entity's ability to continue in existence for one year from the balance sheet date. In addition, "how to" guidance is needed that more effectively deals with the role of forward-looking information in assessing and reporting on financial distress.

- ***Risks, uncertainties, and estimates***. Additional how-to guidance is needed to help auditors improve testing of risks, uncertainties, and estimates.

2. ***Agreed upon procedures engagements***. The Auditing Standards Board should consider whether its standards will unnecessarily inhibit the growth of agreed-upon-procedures engagements. For example, CPAs are prohibited by SAS No. 26 and SSARS No. 1 from applying agreed-upon procedures to full sets of financial statements.

3. ***Systems***. Performance guidance is needed that deals with timely auditor involvement (including continuous auditor reporting) with the content of databases and/or the processes and systems that generate the content.

4. ***Electronic commerce***. Performance guidance is needed for auditor involvement with electronic commerce.

5. ***Electronic reporting***. Preparers are beginning to experiment with electronic disclosure

of financial information. Guidance is needed regarding the auditor's association with such information.

CPA Firms

Firms should consider improving audit methods in the following areas:

1. ***Use of audit knowledge.*** Auditors are in a unique position to add value to clients by having unrestricted access to a client's affairs. By combining this vantage point with knowledge of a client's industry, the auditor can gain insights into a client's affairs that represent vital information of great potential value to clients. This information should be systematically organized and presented to clients as a key "deliverable" of an audit. This move will necessitate a change in mindset of the audit partner and other audit team members. Rather than think of the audit "deliverable" as simply the audit opinion, the deliverable needs to be thought of as a customized set of communications. Such communications should exploit the knowledge gained on an audit regarding strengths, weaknesses, opportunities, and threats faced by the client.

2. ***The "tough problems."*** In concert with the AICPA, firms also have a significant role to play in making further progress on the tough problems that may arise in audits. For each of the items below, firms should consider the need for greater audit partner involvement as a key element of improvement/solution strategies.

    - *Fraud and other illegal acts*:

        - Additional firm guidance is needed on how information technology and systems design can prevent fraud and illegal acts and how client systems would be evaluated from this "prevention" perspective.

        - Additional firm guidance also may be needed in order to more effectively deal with the detection of fraud and other illegal acts.

        - Information technology needs to be integrated into firm audit processes, not only to detect occurrences, but also to aid in understanding automated systems and how they should be designed to prevent occurrences in the first place.

        - The composition of the audit team may need to be modified to increase its fraud detection possibilities.

    - *Financial distress and going concern*:

        - Additional firm guidance may be needed in order to more effectively deal with the role of forward-looking information in assessing and reporting on financial distress.

- *Risks, uncertainties, and estimates*:

    - Additional firm guidance may be needed on how to test the reasonableness of assumptions and how to assess the quality of the process by which management's judgments are derived.

3. ***Client Systems.*** Firms need to strengthen audit approaches for assessing control risk associated with highly integrated, worldwide databases of historical financial information. In addition, firms need to continue to develop and refine methods for continuously monitoring/auditing client systems. Firms also need to develop audit approaches for dealing with risks of electronic commerce.

4. ***Performance Auditing.*** Firms involved in audits of governmental units need to continue to develop or refine audit approaches for performance audits.

Measurement and Reporting Criteria

GAAP are the measurement and reporting criteria (standards) for financial statements. As the profession moves into new assurance services, there is a need for new, flexible measurement and reporting criteria that permit customized assurance to fill *individual* decision-maker needs. In the competitive environment in which new services will be offered, speed-to-market is a key determinant of success. Consequently, the Special Committee on Assurance Services recommends that the profession needs to considerably accelerate its standard-setting processes.

The Role of Measurement and Reporting Criteria

What information is relevant, *how* should it be measured, and *when* and *how* should it be reported to user/decision makers?

The Need for New, Flexible Criteria

What measurement and reporting criteria are needed to bolster current services and support new assurance services?

New Approach for Developing Criteria

The goal is to develop flexible measurement and reporting criteria on a timely basis that permit customized assurance services to fill individual needs.

The Role of Measurement and Reporting Criteria

Traditionally, the role of measurement and reporting criteria (e.g., GAAP and financial forecast guidelines) has been to provide guidance to preparers, assurers, and others regarding the measurement and reporting of general purpose financial information to broad classes of users who are external to the reporting enterprise. Since the interests of external users generally extend across numerous enterprises, a fundamental goal has been to achieve comparability of financial information across enterprises. More specifically, the criteria (standards) are intended to address, among other things, issues of *relevance* (what information should be measured and reported?), *reliability* (how should the information be measured?), and *timeliness* (when should the information be reported?).

The Committee's view of assurance services provides a slightly different perspective on the role of measurement and reporting criteria. The Committee defines Assurance services as:

> Independent professional services that improve the quality of information, or its context, for decision makers.

As indicated by this definition, the focus of an assurance service engagement is on a particular set of information used for a specified decision or set of decisions by identified decision makers (individuals or groups). Accordingly, to deliver assurance, the assurer must be able to identify *what* is the appropriate information set for the decision at hand and determine *how* and *when* the information should be developed and presented to the identified decision maker(s). In short, the Committee sees the need for measurement and reporting criteria that permit customized assurance services to fill *individual* decision-maker needs.

What Information?

As described in Relevance Enhancement Assurance Services , a decision maker draws upon a wide range of "relevant" information in making important decisions. Examples of "relevant" information related to various steps in a typical decision process are shown in the table below.

The table adopts a customer focus and assumes that, as the assurer moves closer to individual user/decision makers (or a group of decision makers), the assurer is able to gain a better understanding of user decision processes and information needed to support each major step in those processes. Consistent with this view, measurement and reporting criteria dealing with the "what" question should provide general guidance on how to assess the information needs of *particular* decision makers involved in *specific* decision processes.

Several of the Committee's proposed new assurance services deal with strategic information and related systems (e.g., risk assessments, performance measures, and reliability of information systems) used by enterprises to plan and control activities involved in their value chains. Consequently, many of the measurement and reporting criteria that will be needed to support these new assurance services must be linked to decision processes that arise in the context of an enterprise's value chain. In New Assurance Services — Linkages to a Client's Business Value Chain, the Committee identifies planning and control information and systems used in an enterprise's value-creating activities and related decision processes.

Table

Types of Information Used in Decision Making

Decision Making Activity (steps)	**Types of Information Used***
1. Problem definition	• Decision maker's objectives • Environmental information • Process monitoring/diagnostic information

	• Outcome feedback information (see step 8 below)
2. Decision model selection/specification	• Information on extant decision models • Information useful in inventing/designing alternatives
3. Decision model information requirements	• Information used to develop definitions of model parameters and independent variables • Information about concepts that are related to the parameters and independent variables and are used in defining those elements • Laws and theories used in developing operational definitions of parameters and independent variables
4. Information sourcing/finding	• Various data bases drawn upon in constructing measurements of model parameters and independent variables
5. Information analysis/interpretation	• "Data about data" • Reliability tags • Preparer definitions • Restrictions on intended uses of data
6. Evaluation of alternatives/tradeoffs	• The decision model itself • Information about areas of the simplified decision model wherein significant suppression of known phenomena has occurred • Sensitivity analysis results
7. Implementation of actions	• Decision variable settings for the optimal solution • Information that links decision variables to implementation activities and task performance • Periodic measurements that monitor implementation
8. Outcome feedback	• Comparative information on desired outcomes vs. actual outcomes • Diagnostic information on deficiencies in the information used in the entire decision-making process
*Note that, at each step in the decision making process, information used in previous steps is also assumed to be available for use in the present step. Thus, the information shown in this column is *cumulative*.	

How to Measure and When to Report?

When dealing with broad classes of users, the "how" issue traditionally has been resolved by establishment of a reliability threshold that is linked to the "average" user through a concept of "materiality." The "when" question has been resolved in favor of periodic reporting.

A customer focus alters the traditional view regarding measurement and reporting criteria for dealing with "how" and "when" issues. As assurers gain a better understanding of the decision processes of individual users, reliability can be tailored to the particular needs of those users by means of sensitivity analysis (i.e., how is the decision affected by differences in the reliability of various information used in the decision process?). Therefore, what's needed are general guidelines for assessing reliability requirements in *specific* decision contexts. Likewise, timing becomes a matter that can be specifically tailored to individual needs.

The Need for New, Flexible Criteria

The new assurance services developed by the Committee deal with many new types of information for which measurement and reporting criteria do not yet exist. Specifically, measurement and reporting criteria are needed for the following new services:

- ***Electronic commerce*** — criteria for measuring and reporting on the integrity and security of electronic commerce.
- ***Health care performance measurements*** — criteria for measuring and reporting on the quality of services provided by care givers.
- ***ElderCare Plus*** — criteria for measuring and reporting on the quality of services provided by care givers.
- ***Risk assessments*** — criteria for identifying risks and measuring and reporting on the likelihood and consequences of risks.
- ***Business performance measurements*** — criteria for measuring and reporting on the performance of all major value-creating activities within an enterprise.
- ***Information systems reliability*** — criteria for measuring and reporting on the reliability of all major internal information systems.

The development of measurement and reporting criteria in each of these areas should be given a high priority by the profession. If competitors are first to develop standards in the new assurance areas identified above, they will be in a strong position to capture whole emerging markets.

Additionally, in Future of the Financial Statement Audit, the Committee calls on the FASB to consider the need for measurement and reporting criteria in the following areas:

- ***Expansion of the business reporting model.*** In response to managers' decision-making needs, companies are rapidly designing and implementing internal performance measures that go far beyond historical financial measures (GAAP). The AICPA Special Committee on Financial Reporting concluded that many of these same performance measures would be valuable information to external parties in evaluating business enterprises:

  > Business reporting must...focus on factors that create longer term value, including non-financial measures indicating how key business processes are performing (Special Committee on Financial Reporting, *Improving Business Reporting*, p.5).

  The Committee's research on customer needs supports the findings of the Special Committee on Financial Reporting, and the Committee urges the FASB to consider expanding business reporting in the directions recommended.

- ***Reporting when companies are in financial distress.*** Auditor reporting on "going concern" is, in part, to compensate for limitations in financial reporting. Management should have a responsibility to provide information and analysis users need to evaluate an entity's financial situation, including its ability to continue as a going concern. FASB should consider whether the financial reporting requirements of SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties*, provides users with sufficient early warning information regarding existing or expected financial distress.

New Approach for Developing Criteria

The profession's current approach to developing measurement and reporting criteria (e.g., GAAP and financial forecast guidelines) operates within a context of an articulated conceptual framework that purports to take user needs into account. From a user perspective, the current processes for criteria (standards) development are deficient in two major respects:

1. ***One-size-fits-all.*** Current standards essentially ignore *individual* user needs. By design, standards are meant to apply to a range of users (signaled by the product description: "general purpose" reports). Despite the need to be responsive to customers' needs, standard setters are generally reactive. With the exception of the Special Committee on Financial Reporting and the Association for Investment Management and Research, there has been relatively little proactive effort to identify users' needs.

2. ***Not timely.*** Considerable time can elapse between an emerging user need for relevant information and a responsive standard. There has been no effort to create a quick delivery system for the creation of new measurement and reporting standards.

The present approach may be improved in several ways. First, all of the new assurance services proposed by the Committee will benefit from a direct linkage and two-way communication channels between the assurer and the decision maker. That infrastructure does not exist today.

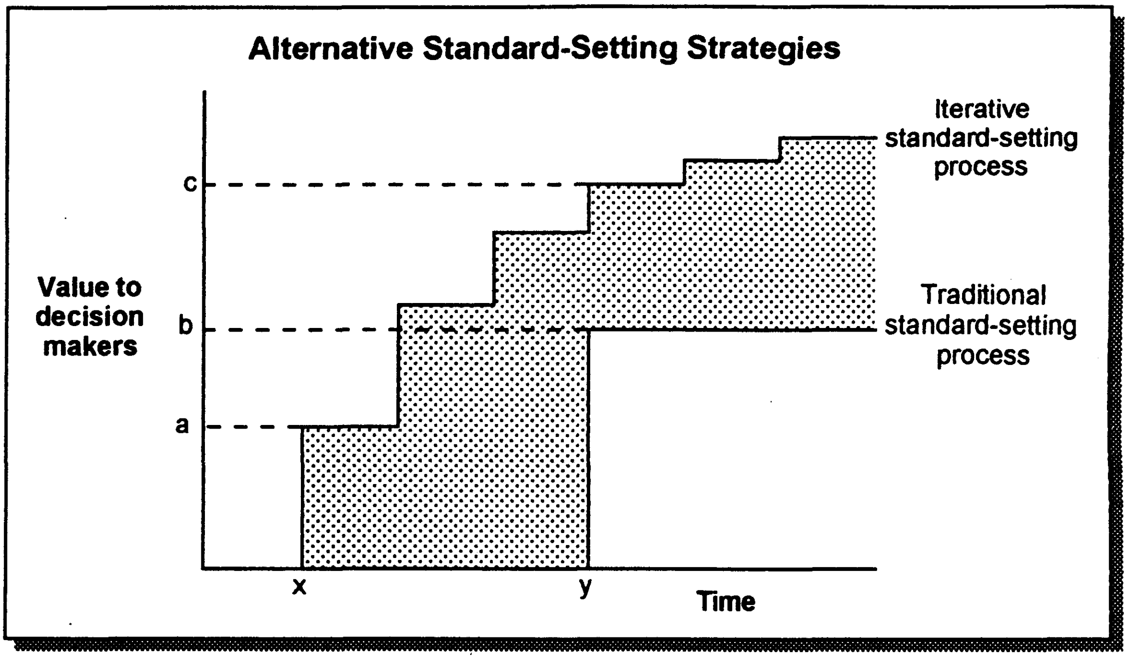
Technology can be a facilitator in establishing a two-way communication channel between the profession and the user. Just as e-mail has made it possible for a low level clerk to voice his or her opinion directly to the chief executive, so will the end user be empowered to give assurers feedback on the products they provide. In short, the user will take center stage. The profession must seek out users and get them into the process by which measurement and reporting criteria are established. In particular, the AICPA should proactively seek input from practitioners' customers. The AICPA's web site is an excellent vehicle for this. The AICPA could involve users in identifying emerging issues related to new service opportunities and the need for new measurement and reporting criteria. Such criteria are far more likely to be effective if they are based on customers' needs.

Second, the profession needs to proactively monitor trends in information technology and related areas. Their potential effects on current and new assurance services are so pervasive that their evaluation deserves care and a high priority. Monitoring trends will assist the Institute in directing its programs of standards development, as well as education and member communications.

Third, standard setters must speed up the process of developing measurement and reporting criteria. Present standard-setting processes are too sluggish to accommodate the rate of change in the financial markets. The exposure draft and comment process can be made more efficient by publishing exposure drafts on the World Wide Web and collecting input via bulletin boards, electronic town meetings, and on-line dialogues between the standard setters and those who wish to comment upon or ask questions about a proposed measurement and reporting criteria.

A fundamental change to developing measurement and reporting criteria would be to use an iterative method of standards development. Under this approach standards would be issued as soon as value can be provided to decision makers (by improving the quantity or quality of information) with the expectation that improvements will follow and may even be frequent. This is analogous to the software development model. A software development company assesses user needs and promptly provides a product that meets a significant user need in order to try to dominate the market for a new application type. The company then receives constant feedback from users and enhances the product. Release

1.0 is followed by release 1.1 (which corrects problems) and, in due course, by release 2.0 (which adds new functions). The improvement process is never complete in a competitive market.



CPAs, who are accustomed to the slower pace of change in their historical franchise market, may criticize the "lower quality" of standards that are issued more quickly than the present standard-setting model can achieve. They may disparage such early standards. In terms of the above graphic, they might compare the value of rapidly issued standards (a) unfavorably with the value of standards issued after lengthy consideration (b). However, the iterative standard-setting process results in continual improvement in the value created for users as a result of feedback and experience (though the infrastructure for feedback would be a necessary component of the standard-setting process design). The more relevant comparison is the value created by the traditional process (b) with the value *at that time* (y) created by the iterative process (c).

The gray area in the graphic represents the cumulative incremental value to decision makers from the iterative process — an increment that is always positive after time x (the date of issuance of the first iterative standard) and keeps growing thereafter.

An objection that may be raised against the iterative method is that it could exacerbate "standards overload." For example, the graphic illustrates six releases under the iterative strategy vs. one under the traditional strategy. However, such a comparison may be misleading because, for example, the typical FASB standard is followed by interpretations, both formal and informal. In principle, the iterative method should be easier for practitioners to follow because the changes would be in response to user needs and thus more likely to be practical and functional. In contrast, the traditional method sometimes creates arbitrary rules that are difficult for practitioners to internalize because they do not seem grounded in practicality and user needs.

Of course, there is risk associated with any attempt to establish measurement and reporting criteria in markets that are still in their formative stages. But there are also major gains to be realized from positioning the AICPA and the profession at the leading edge in those emerging markets. The Institute has little to lose and much to gain in developing more accelerated standard-setting programs.

Competencies

The Special Committee on Assurance Services has identified numerous opportunities for assurance services that the profession may pursue now and in the near future. The new assurance services will require an expanded set of competencies. Individuals, firms, academics, and professional organizations need to carefully evaluate the gap that exists between current competencies and those that will be needed as the profession moves into new assurance services. Ultimately, the profession's ability to close the gap will depend on the individual practitioner's willingness to make a commitment to an aggressive program of life-long learning.

Current Competencies

Current competencies describe what individual auditors know and what individual auditors and audit teams do today.

General Competencies Needed in the Next Decade

What are the competency implications of:

- Customer focus,
- Migration to higher value-added information activities,
- Information technology,
- Pace of change and complexity, and
- Competition?

Specific Competencies Needed for New Assurance Services

What competencies are needed for:

- Electronic commerce,
- Health care performance,
- Risk assessment,
- Business performance,
- Information systems reliability,
- ElderCare Plus, and
- Other new assurance service opportunities?

Actions to Close the Gap

What should higher education, the AICPA and state societies, firms, and individuals do to close the gap between current vs. desired competencies?

Current Competencies

In The Profession's Current Competencies, the Committee describes competencies as follows:

> Competencies include both what individual auditors know and what individual auditors and audit teams do. Competencies are evidenced by auditors applying their skills in the delivery of services to clients or supporting the delivery of those services.

In line with this description, the Committee identified the following 19 competencies that are relevant to the provision of assurance services today:

- Accounting and auditing standards.
- Administrative capability.
- Analytical skills.
- Business advisory skills.
- Business knowledge.
- Understanding client's business processes.
- Capacity for work.
- Communication skills.
- Efficiency.
- Intellectual capability.
- Learning and rejuvenation.
- Marketing and selling.
- Managing audit risk.
- Model building.
- People development.
- Relationship management.
- Responsiveness and timeliness.
- Technology.
- Verification.

General Competencies Needed in the Next Decade

In Competencies for the Future, the Committee identifies the following five major imperatives regarding future competencies, each of which implies *increasing emphasis on the competencies noted*:

- ***Customer focus.*** Assurance services are intended to benefit decision makers by improving the information used in their decision processes. Assurers need to understand user decision processes and how information should enter into those processes. Increasing emphasis is needed on:

- Understanding of user needs.
- Communication skills.
- Relationship management.
- Responsiveness and timeliness.

- ***Migration to higher value-added information activities.*** To provide more value to client/decision makers and others, assurers need to focus less on activities involved in the conversion of business events into information (e.g., collecting, classifying, and summarizing activities) and more on activities involved in the transformation of information into knowledge (e.g., analyzing, interpreting, and evaluating activities) that effectively drives decision processes. This will require:
    - Analytical skills.
    - Business advisory skills.
    - Business knowledge.
    - Model building (including sensitivity analysis).
    - Understanding the client's business processes.
    - Measurement theory (development of operational definitions of concepts, design of appropriate measurement techniques, etc.).

- ***Information technology (IT).*** Assurance services deal in information. Hence, the profound changes occurring in information technology will shape virtually all aspects of assurance services. As information specialists, assurers need to embrace information technology in all of its complex dimensions.
    - Embracing IT means understanding how it is transforming all aspects of business. It also means learning how to effectively use new developments in hardware, software, communications, memory, encryption, etc., in everything assurers do as information specialists, not only in dealing with clients, but also in dealing with each other as individuals, teams, firms, state societies, and national professional organizations. To fully embrace IT, the assurer needs to go beyond the competency entitled "Technology" shown in The Profession's Current Competencies and consider the new developments identified above.

- ***Pace of change and complexity.*** Assurance services will take place in an environment of rapid change and increasing complexity. Assurers need to invest heavily in life-long learning in order to maintain up-to-date knowledge and skills. They will require:
    - Intellectual capability.
    - Learning and rejuvenation.

- ***Competition.*** Growth in new assurance services will depend less on franchise/regulation and more on market forces. Assurers need to develop their marketing skills — the ability to see clients' latent information and assurance needs and rapidly design and deploy cost-effective services to meet those needs — in order to effectively compete for market-driven assurance services. Required skills include:

- Marketing and selling.
- Understanding customer needs.
- Designing and deploying effective solutions.

Specific Competencies Needed for New Assurance Services

In Competencies for the Future, the Committee identifies the following competencies that will be needed for new assurance services:

- ***Electronic Commerce***. Specific competencies required to engage in electronic commerce assurance services involve gaining an in-depth understanding of the risks of electronic commerce (intentional attacks, transmission failures, lack of authentication, loss of trust, theft of identity, etc.). Assurers will also need to gain knowledge of IT developments involved in electronic commerce, including encryption, electronic cash, etc., and will need to understand automated techniques for delivering assurance (software agents, sensors, and other IT based tools). Also, as criteria are developed for the integrity and security of electronic commerce systems, CPAs will need to master them. Finally, increased knowledge will be needed regarding preventive controls and how systems can be designed with built-in reliability.

- ***Health Care Performance Measurements.*** The most critical need for assurers who intend to engage in assurance services involving the quality of health care is to understand the relationship between medical services and outcomes. Assurers need to understand the health care delivery system, the services provided, and quality attributes associated with those services.

- ***Risk Assessment.*** A major competency requirement for delivering this assurance is gaining an understanding of a comprehensive set of risks that affect organizations. Further, risk assessments are closely linked to an organization's mission, vision, objectives, and strategies involving its value chain, and knowledge of these business planning activities and outputs is also needed. Finally, risk assessment often involves the assurer in the development of new "relevant" measures, which means that competencies involving relevance enhancement activities are needed, including (a) knowledge of measurement theory and skills in defining and constructing measures, (b) understanding of "data about data" (e.g., reliability information about data) and limitations in data used to develop those measures, and (c) use of sensitivity analysis to evaluate risk assessment alternatives.

- ***Business Performance Measurements***. Performance measures are derived from an organization's mission, vision, objectives, and strategies, which means that greater understanding of these elements is needed by practitioners who wish to provide assurance on performance measures. As indicated above, risk and performance are closely related; hence, practitioners will also need to have a knowledge of risks that can defeat the achievement of objectives (i.e., result in unfavorable performance). Finally, practitioners will need to have competencies in the same "relevance enhancement" activities outlined above under "Risk Assessment."

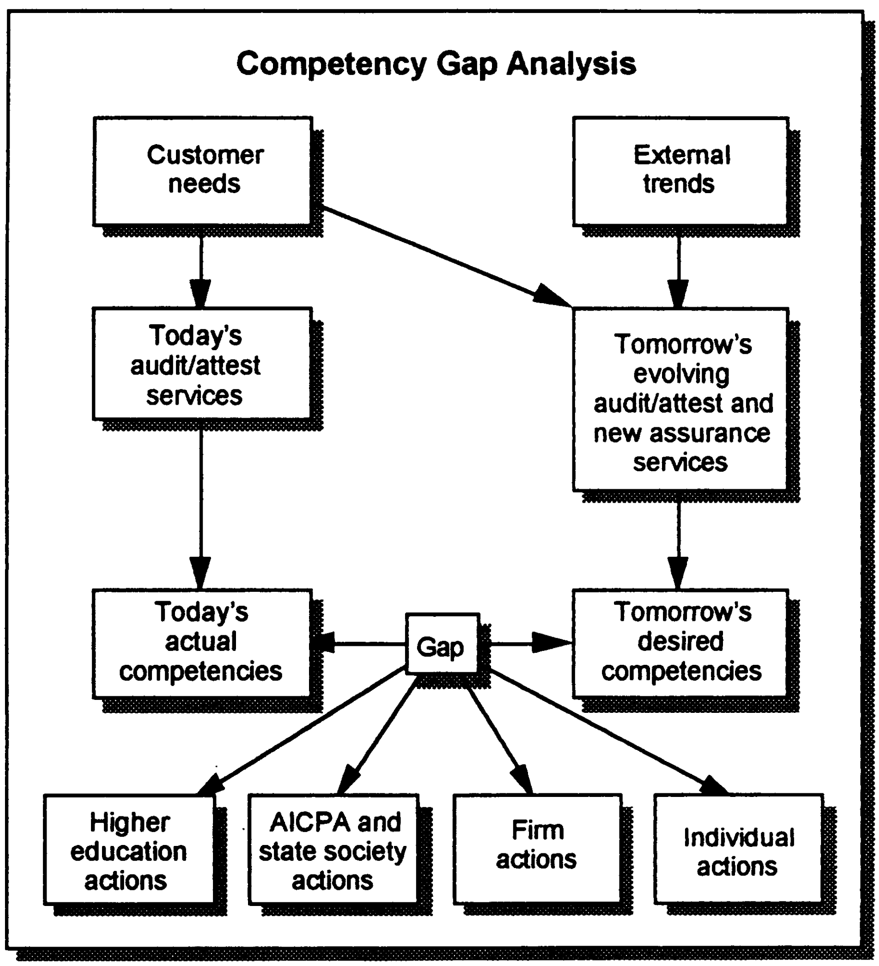
- ***Information Systems Reliability***. Assurance on information systems reliability is not restricted only to systems for financial reporting, but also deals with an all-encompassing set of non-financial information involving all aspects of an entity's value-chain activities (purchasing, inbound logistics, production, marketing, outbound logistics, after-sale services, etc.). The ultimate goal of this assurance service is to be able to provide real time assurance on the content of data bases. With this goal in mind, a major competency issue involves developing an understanding of preventive controls and how systems reliability may be accomplished by design rather than by error detection and correction. Other competencies needed to effectively deliver this service include greater understanding of electronic commerce issues (see "Electronic Commerce," above). In addition, since this assurance service deals with the reliability of a broad range of non-financial information, the practitioner will need to have an understanding of the nature of non-financial measurements and "data about the data."

- ***ElderCare Plus***. This assurance service focuses on the needs of the elderly and whether care givers are providing services that meet specified objectives. Accordingly, required competencies involve knowledge of the physical and psychological needs of the elderly and knowledge of the range of services provided by care givers and quality attributes of those services. In addition, knowledge is required of the unique legal considerations that come into play in elder care.

- ***Other Assurance Service Opportunities***. The Committee has developed brief templates for the following additional assurance service opportunities; special competency requirements are noted after each service:
  - ***AIMR compliance*** — knowledge of AIMR standards.
  - ***Policy compliance*** — subject matter knowledge in the domain of the policies.
  - ***Outsourced internal auditing*** — subject matter, as necessary.
  - ***Trading partner accountability*** — subject matter, as necessary.
  - ***Mergers and acquisitions*** — understanding of valuation and strategic issues.
  - ***ISO 9000 certification*** — understanding of ISO standards and quality management.
  - ***World wide web assertions*** — understanding of the subject matter involved in the assertions and Internet security and reliability.

Actions to Close the Gap

In Competencies for the Future, the Committee presents the framework shown below as a way of examining competency issues faced by the profession. As the figure indicates, today's audit/attest services are delivered with a set of competencies that are in place today. Anticipated customer needs and external trends will lead to evolving audit/attest and new assurance services, which in turn suggest a desired set of competencies for the future. A comparison of current to desired competencies identifies gaps that can be acted upon by organizations and individuals. Possible actions by various stakeholders are described in the following paragraphs.



Higher Education

- Continue to implement Accounting Education Change Commission recommendations, placing additional emphasis on:
  - Understanding user needs.
  - Understanding user decision processes.

  - Understanding how information technology is affecting business.
- Modify auditing curricula:
  - Encompass a much broader range of assurance services.
  - Provide a much wider and deeper exposure to information technology, including information design reliability issues.
  - Adopt a customer focus; increase the emphasis given to understanding user needs and delivery of relevance enhancement services

AICPA and State Societies

- Provide continuing education regarding the following competencies with a high priority directed to small firms that have limited resources for training:

  - ***Electronic Commerce.*** The opportunity for small firms is to provide assurance services to small clients who are required by their suppliers or customers to use EDI. The competencies required to deliver this service involve an understanding of the risks involved in EDI and the various technology considerations involved in an EDI installation.

  - ***Health Care Performance Measurements***. The opportunity for small firms is to provide assurance to HMOs regarding the quality of service being provided by small health care contractors, such as individual doctors, physician groups, clinics, and nursing homes. The competencies required to deliver this service involve an understanding of the specific services provided to the HMO by the contractor and related quality attributes.

  - ***Risk Assessment***. A comprehensive assessment of risks and the small client's systems for dealing with them should be of considerable value to the small business owner/manager. The competencies required to deliver this service are generally those identified under Specific Competencies Needed for New Assurance Services; however, the corresponding knowledge and skill requirements need to be tailored to a small business environment.

  - ***Business Performance Measurements***. Small businesses need to consider performance measures beyond financial reports; hence, the opportunity exists for small firms to provide this assurance. The competency requirements identified under Specific Competencies Needed for New Assurance Services need to be tailored to the small business environment.

  - ***Information Systems Reliability***. Small businesses also need to consider the reliability of their information systems that deal with non-financial information. The competency requirements identified under Specific Competencies Needed for New Assurance Services need to be tailored to the small business environment.

- *ElderCare Plus*. This assurance service is ideally suited for the small-firm practitioner. Potential customers may already be receiving tax and/or estate planning services. Other potential customers may reside in small communities where even the smallest practitioner will have an opportunity to enter the market. The competency requirements are those identified under Specific Competencies Needed for New Assurance Services.

- The AICPA needs to consider the implications of the desired competency requirements both for the CPA examination and for accreditation of specialists.

Firms

- The actions that might be taken by firms will depend on their size, the extent to which they have in-house capabilities for instructional development and delivery, and the extent to which they choose to hire professionals with designated competencies rather than build those competencies internally.

Individuals

- Individuals will need a broad range of competencies in order to effectively compete in the market for assurance services during the next decade. Much assistance in developing those competencies may come from CPE and firm training programs. On-the-job experience will also contribute significantly. Individuals must recognize, however, that much of the burden will fall on themselves to enhance competencies through a life-long commitment of self study.

Assurance Independence Concept

Professional independence requirements apply to audits, reviews, and other attest engagements, but there is no concept of independence applicable to new types of assurance services. The concept should apply to the full range of possible new assurance services.

Defining Assurance Independence

With new assurance services coming on stream, there is a need for a new concept. It is derived from basic concepts of audit independence.

Determining Assurance Independence

The reasonable person concept is used, but it is important to determine consistently when the new definition would be applicable. A flowchart shows how.

Independent Preparation and Supply of Information

Information can be independently developed, assembled, and delivered.

Concepts Applied to Services Already Identified by the Committee

The services recommended by the Committee will be covered mostly by traditional concepts, such as attest independence, but ElderCare Plus can be a mix of services.

Defining Assurance Independence

Why is a definition needed? There are requirements for audit and attest independence, but the definition of assurance services is much broader than either audit or attest services. In fact, the potential number of assurance services is unlimited. This is obvious from Assurance Services — Definition and Interpretive Commentary and Relevance Enhancement Assurance Services, from the Committee's research on customers' needs and the changing practice environment, and from the breadth of services and potential services it identified. Since the definition of assurance services says the services are "independent professional services" and current authoritative independence requirements do not apply to new types of assurance services, the Committee had no alternative to defining assurance independence.

The definition is as follows:

> Assurance independence is an absence of interests that create an unacceptable risk of material bias with respect to the quality or context of information that is the subject of an assurance engagement.

A "material bias" exists if a reasonable person with knowledge of the assurer's interests in the information (or context) would conclude that the assurer's objectivity is impaired.

"Information that is the subject of an assurance engagement" includes the output of information systems that are the subject of assurance engagements. For example, in an assurance engagement to evaluate the reliability of a system that produces customer satisfaction information, the assurer is independent if s/he has no interest that could create an unacceptable risk of material bias with respect to the quality or context of the customer satisfaction information.

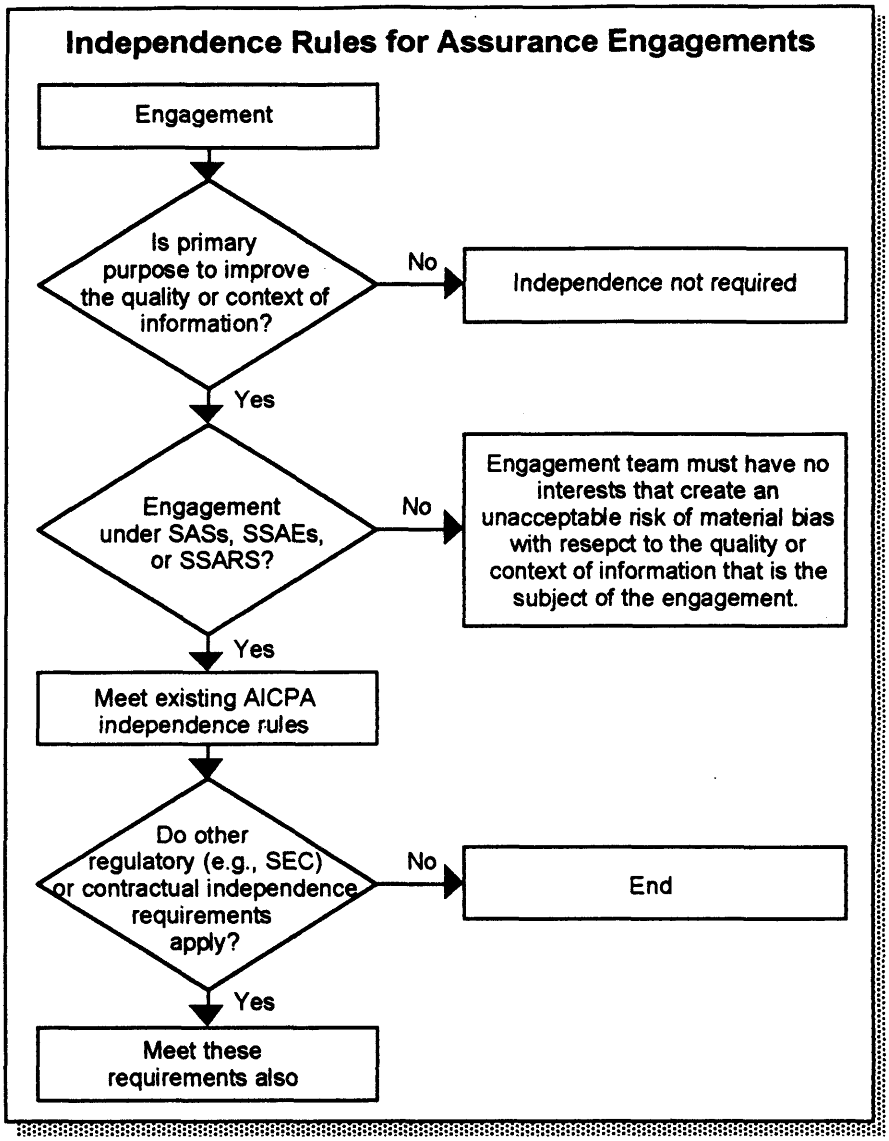
Assurance independence is separate from objectivity, which is an intellectual quality, even though lack of assurance independence can affect objectivity. It is also separate from integrity, a moral quality. The relationships among the three concepts are explained in Assurance Independence. That section also shows that the new definition is consistent with independence concepts and requirements. Consistency was ensured by extrapolating the new definition from the basic concepts of audit independence.

Applicability. The new definition would be applied only to assurance services that are not covered by Statements on Auditing Standards (SASs), Statements on Standards for Attestation Engagements (SSAEs), and Statements on Standards for Accounting and Review Services (SSARS). Requirements for audit and attest independence currently in force would remain in force and applicable to audit and attest engagements within the broader set of assurance engagements.

Determining Assurance Independence

Reasonable person concept. Assurance independence should be determined by the reasonable or prudent person concept. Under this concept, one tries to determine whether a reasonable person "having knowledge of all the facts and taking into consideration normal strength of character and normal behavior under the circumstances" would conclude a relationship (interest) poses an unacceptable risk of material bias. In other words, the risk must be so significant that the reasonable person finds it unacceptable. No one can know the actual risk because it varies depending on the assurer's levels of integrity and objectivity and depending on the interests in question.

Of course, in order to apply the concept, one must identify whether an engagement is one of the new types of assurance services. The decision chart below illustrates the process.



The first question is whether the engagement's primary purpose is to improve the quality or context of information for decision makers. If it is not, it is not an assurance service, and independence would not be required. If the answer is yes, one would proceed to ask whether the engagement service is covered by the SASs, SSAEs, or SSARS. The question would separate new types of assurance services from services that should be governed by the three sets of standards just cited.

If the service is not covered by the SASs, SSAEs, or SSARS, the engagement team would be subject to the principle in the assurance independence definition — i.e., the team would have to meet the independence rule of having no interests that create an unacceptable risk of material bias with respect to the quality or context of information that is the subject of the engagement. The principle is applied to the engagement team, rather than reaching to every individual in the firm, in order to avoid impracticable situations that do not affect the public interest.

As the chart illustrates, engagements that are covered by the SASs, SSAEs, or SSARS must meet existing AICPA independence rules. The remainder of the decision chart merely identifies engagements that are also subject to other independence requirements (public-sector, private-sector, or contractual) and acknowledges that compliance is required.

Independent Preparation and Supply of Information

Information can be independently developed, assembled, and delivered. This would be the case whenever the assurer had no interest in the supplied information that would create an unacceptable risk of material bias. Merely preparing information does not create an interest inconsistent with desiring its accuracy, being objective, and retaining integrity, and the parties interested in the quality of the information would benefit from its independent preparation (assuming the assurer's competency, integrity, and objectivity and the client's need for the information).

Considering current assurance services, people appear to assume that preparation can be performed independently. When ballots are counted by an independent auditor — say, by Price Waterhouse at the motion picture academy awards — the independent preparation of the information — i.e., the count — is what the client is paying for, and all associated parties understand that. When some parties interviewed by the Committee said that they would appreciate risk analysis and types of monitoring data from auditors, it was partly because they believed the auditors would be independent preparers of the information. There is no reason to believe they would want the analyses and monitoring data independently audited.

Concepts Applied to Services Already Identified by the Committee

Assurance services in electronic commerce and healthcare performance measurement will be attest services (reporting on a report preparer's compliance with measurement standards) or measurement reports in which the assurer develops and supplies the information. The same is true of reports on the quality of information systems, risk assessments, and entity performance. Attest situations would be covered by existing independence rules. Independent preparation of information for decision making is discussed above.

ElderCare Plus can involve a mix of assurance services, consulting services (e.g., establishing standards of care with a care provider), and direct services (e.g., paying the client's bills, accounting for the client's income). The assurance services consist of monitoring conditions, examining evidence of performance by care providers, and reporting periodically on the level of care to concerned parties. In this work, the assurer would be independent if s/he had no interest in the report's findings that could cause an unacceptable risk of material bias. Assurance independence would not be required for the other services in the mix. Complicated situations might arise from the interplay of the different services. If the combination of services impairs assurance independence, the assurance service could not be performed. For example, if the selection of a doctor is based on an advisory report by the assurer that cites credentials and gives alternatives and the decision to hire the doctor is made by the patient and/or a concerned relative, that consulting service would not lessen the assurer's independence in reporting. However, if the assurer made all the care decisions, independence would be lost. Situations might also arise where independence is impaired with respect to some types of information, but not others within the same engagement. In such situations, the assurer could disclose the impairment and provide assurance with respect to information where independence is unimpaired.

Assurance Service Liability

Litigation risk can be reduced for current services, and the same techniques can be integrated into the process of developing and implementing new assurance services. At the same time the liability environment must be monitored for changes.

Control Is Possible

An arsenal of risk control devices is available.

Cautionary Language

Cautionary language can offer protections when used in assurers' reports or in information that is the subject of an assurance engagement.

Moving from Tort to Contract Liability

Relying more on contractual arrangements to govern engagement liability can be a helpful litigation control strategy, even though tort law can provide advantages in certain circumstances. Loss-limiting clauses and alternative dispute resolution are key techniques.

Computer-Disseminated Information

Because an increasing amount of assurance work will involve computer-disseminated information, practitioners should understand the litigation risk status and approaches to controlling the risks.

Liability Risk Mitigation Model

How to reduce litigation risk in developing new assurance services, a model for firms and for the AICPA.

Control Is Possible

The Weapons at Hand

Assurance service liability can be controlled, both by applying currently available risk-avoidance techniques to current services and by approaches to evaluating and implementing new services. Existing techniques include those listed below and audit quality controls that also function as liability risk control devices, such as effective procedures on acceptance and continuance of clients.

- Cautionary language in (1) information that is the subject of assurance services and in (2) assurers' work products can often help protect assurers from unwarranted liability.

- Bringing assurance-service liability more within contract, as opposed to tort, law than it is now promises some advantages.

- Assurers should consider the availability and potential benefits of loss-limiting clauses when arriving at engagement terms.

- Assurers should evaluate the suitability of alternative dispute resolution (ADR) to their engagement circumstances.

- Evaluate service risks in terms of the firm's portfolio of service offerings. Are certain engagements or types of engagements imprudent to retain? Would potential new engagements be imprudent additions?

- Monitor the litigation risk of disseminating information that is the subject of an assurance engagement over public computer networks, such as the Internet.

These weapons can be integrated into a risk mitigation mode.

Cautionary Language

What Is it?

Language can warn a reader about the limits of information sufficiently to prevent that information from misleading a reader and thereby causing injury. In this way cautionary language may mitigate litigation risk when used in information that is the subject of an assurance engagement and when used in assurance reports.

Applicability

Although the most famous deployment of cautionary language today is in forward-looking statements about financial performance, it also has applications in other assurance situations. In all litigation involving the federal securities laws a threshold question has been whether the alleged misrepresentation — taken in its context — would have misled a reasonable investor. The language accompanying a misstatement may render it immaterial or make reliance on the misstatement unreasonable. These two criteria — materiality and reasonableness of reliance — generally apply to information that is the subject of an assurance engagement, a powerful incentive to look to cautionary language in developing and structuring new assurance services.

Limitations

Cautionary language cannot protect against a statement that has no objective basis, for example, and, if prominent, can diminish the perceived value of an assurer's work.

Moving from Tort to Contract Liability

Why?

Tort claims allow a broader group to sue than contracts and have generally led to the largest court awards and settlements against accountants. While tort law can provide advantages in certain circumstances, relying more on contractual arrangements to govern engagement liability can be a helpful litigation control strategy. The advantages of the two forms are outlined in the table below. The analysis is based on audit liability, but the term assurer is used for illustration where it appears to fit.

Contract	Tort
Assurer can negotiate a limit on those who are to receive the assurance work product and are therefore presumed to be reliant parties	[Known, foreseen, or foreseeably affected parties may sue, depending on the jurisdiction and the claim]
Assurer can negotiate damage terms, which could range from corrective performance to financial loss	
Contract can make explicit the role of the assurer and his/her work product	[Risk that professional role will be misunderstood and claim for injury from work product be easier to establish]
[Plaintiff must prove breach of contract]	Plaintiff in some tort claims must prove a state of mind (e.g., *scienter* or guilty knowledge, such as intent)
	Statutes of limitations tend to be shorter, although the statute of limitations for some torts is measured from the time the alleged tort was discovered
Can avoid litigation costs by specified indemnities and ADR arrangements	

Limitations

Contractual protection has two limitations: (1) As a general matter, it cannot protect an assurer from liability for intentional or reckless misconduct; (2) The contract generally binds only those who agree to it, so it cannot protect against most third-party claims (e.g., the claims of shareholders). In addition, practitioners frequently can be sued under both contract and tort law.

Despite these limitations, contract law's advantages are highly relevant. Engagement letters are contracts and can be more or less effective. The context of concern is not only audit work but the whole range of assurance work, now and in the future.

Loss-Limiting Clauses

These are contractual clauses that (1) agree to indemnify the client a specified amount (e.g., fees paid) for losses caused by the services delivered or (2) agree that the client will indemnify the accountant for claims by third parties (gross negligence or willful misconduct by the accountant are typically identified exceptions).

The availability of these types of clauses in audit engagements has been restricted. Current AICPA ethics rulings permit loss-limiting clauses when the loss arises from knowing misrepresentations by management, holding that such clauses do not impair the practitioner's independence. The ethics code does not deal with engagement-letter indemnities under other conditions, but an item in the AICPA Ethics Committee's meeting minutes in 1994 allows that indemnities without regard to fault do not impair independence.

The SEC has held that the relief from liability created by loss-limiting clauses in which the client agrees to make the auditor whole for third-party claims impairs audit independence. Since the rationale for the SEC's position is partly that the threat of liability is an incentive to diligent work, it also objects to restricting responsibility for the client's loss to the fee.

Because loss-limiting clauses provide obvious advantages, assurers should consider their availability when arriving at engagement terms. They are generally available in private-company engagements.

Alternative Dispute Resolution (ADR)

ADR refers to a range of procedures that include arbitration (where a third party decides) and mediation (where a third party assists the disputants to reach a voluntary settlement). Evaluators are typically chosen by the parties, and the rules are generally either set by the parties or approved by them. ADR can be agreed to after a dispute arises, but it can also be mandatory as a consequence of a clause in the engagement letter.

ADR's primary advantages are that it avoids the uncertainties, delays, acrimony, publicity, and expense of the courts. A potential disadvantage is that its low cost can prompt claims by clients who would not otherwise press them. In addition, if multiple claims are involved, some of which are subject to ADR and some not, the risk of duplicative proceedings may be present. There also may be situations where legal defenses available to the practitioner have less impact with arbitrators than they would with judges. Finally, ADR parties can be disadvantaged in litigation following nonbinding mediation by already having disclosed their defense strategies.

ADR's availability can be limited by professional liability insurance. Malpractice policies often deny coverage in the event that a claim is compromised by the insured, and binding arbitration, or other forms of ADR, may constitute such a compromise.

Appendix B of Assurance Service Liability contains a copy of a policy statement subscribing to ADR and a list of signatories. The statement, developed by CPR Institute for Dispute Resolution, does not commit a signatory to ADR in all or in any particular circumstances and explicitly acknowledges both parties' right to sue.

Examples

Appendix A of Assurance Service Liability provides examples of loss-limiting clauses, an ADR provision, and other contractual clauses that have been used by some firms to mitigate liability risk.

Computer-Disseminated Information

Current Risk Status

Under current law the litigation risk from financial information disseminated over a public computer medium, such as the Internet, does not appear greater than for information otherwise distributed, although the relevant legal reasoning has yet to be applied to accountants. This also applies to nonfinancial information that is the subject of an assurance engagement and to assurers' reports.

The risk-status conclusion derives from a New York doctrine established in 1921 (*Jaillet v. Cashman*), in a case about misreported information over the ticker service. More recently, the same reasoning has been applied to computer-disseminated information, and it has a foundation in tort law concepts.

The Future Is Not Assured

The public-media reasoning in *Jaillet* has not yet been applied to accountants. In addition, although *Jaillet* may protect against negligence claims in many jurisdictions, it may not be applied universally and does not protect against claims of recklessness that is tantamount to fraud. Case law and new statutes could make computer networks less hospitable to assurance services. And because the Internet is an international medium, accountants could be found liable for having broken other countries' laws. Clearly, the legal environment should be monitored closely.

Contractual Language

Contractual language is advisable for assurance engagements entailing computer-disseminated information and assurers' reports — for example, in subscription agreements (if one is to be entered with the party disseminating the information) and in on-line sign-up procedures before a transmission.

Mitigation Model

Premises

The risk mitigation procedures already cited (and discussed more fully in Assurance Service Liability) are incorporated in the model illustrated by the flowchart below. The procedures in the model would be applied during the cycle of new assurance service development and implementation. To depict this, the model relies on the Committee's service development recommendations.

Divisions of the Flowchart

The flowchart is divided vertically by the categories on the far left. These represent the sequenced phases of bringing a service to market. The flowchart is also divided horizontally into activities by the AICPA (left) and those by firms (right).

The first vertical division, or phase, is called the service concept and corresponds to the activities of the Assurance Services Committee and its task forces and to the unilateral development of service concepts by firms. The Assurance Services Committee would monitor the evolving service environment and identify new or growing needs for assurance services, and the task forces would take the ideas to the next stage of development. This could result in a business plan that goes directly to AICPA members or it could include AICPA guidance.

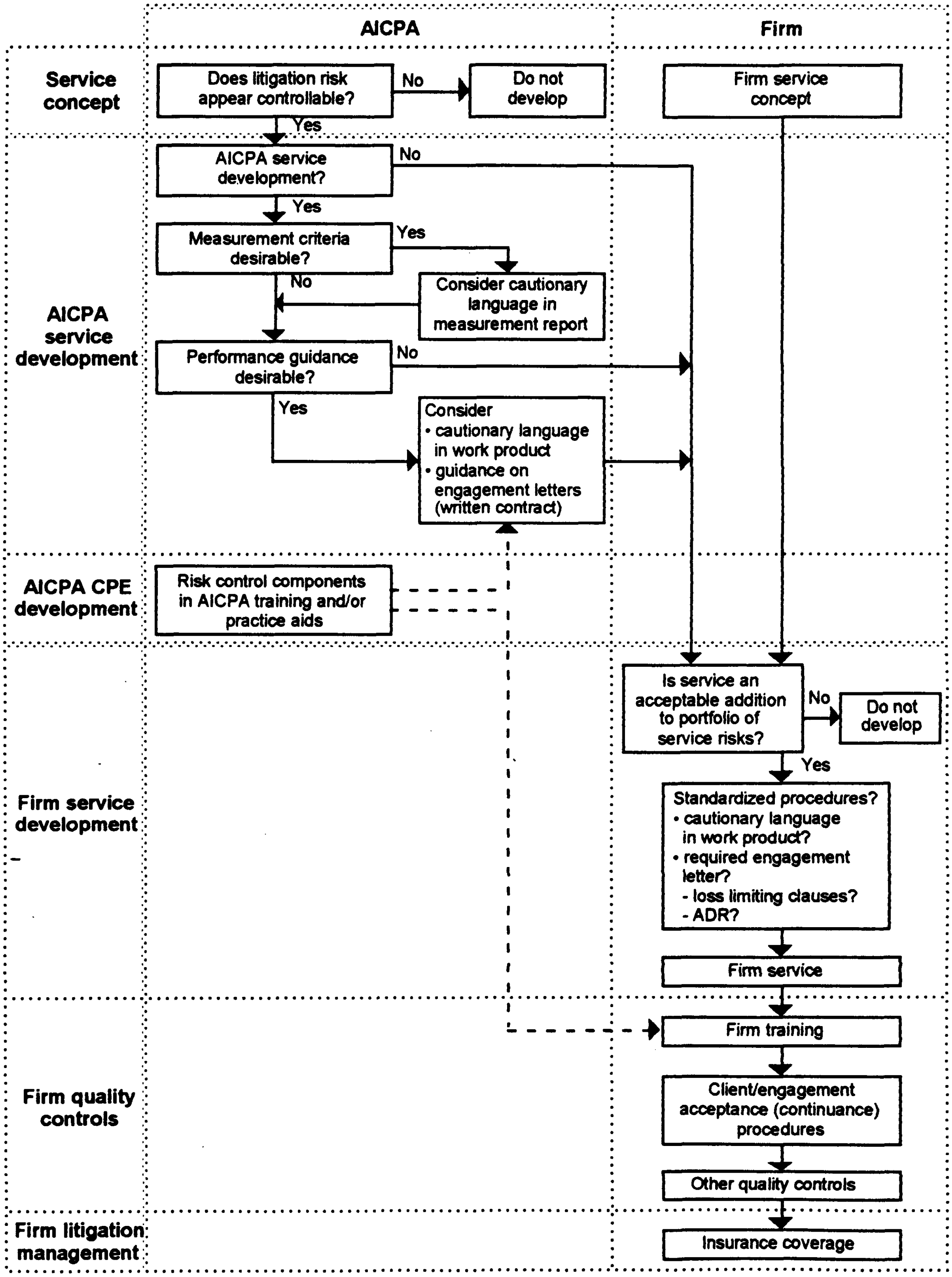
The AICPA Service-Concept Phase

The flowchart assumes that the AICPA service-concept phase would include a reasonableness or common-sense test for liability exposure. That's the box at the top which says "Does litigation risk appear controllable?" (The counterpart test for firm service concepts will be discussed under firm service development.)

At this point the AICPA side of the flowchart divides into two branches, one for AICPA service development and the other leading to firm service development. AICPA service development is optional, a phase that occurs only when it is advisable. However, firm service development can occur as a follow-on phase after AICPA service development, or it can occur without AICPA intervention, as is indicated by the first box on the firm side of the flowchart.

Assuming it is considered advisable to have the AICPA develop the service, two kinds of formal guidance might be considered desirable, measurement criteria and guidance on assurance procedures. Both present the opportunity for risk mitigation. In the case of measurement criteria, this is summed up as cautionary language in the measurement report. In the case of assurance guidance, risk mitigation is abbreviated as cautionary language in the work product and guidance on a written contract. This process refers to the full range of possible contractual policies, including loss-limiting provisions and ADR. It also includes evaluating the effect of the potential risk mitigation on the salability and pricing of the service.

Liability Risk Mitigation Model for New Assurance Services



Firm Service-Development Phase

The firm service-development phase could begin in three ways: (1) on receipt of a business plan from the AICPA service-concept groups, (2) after AICPA guidance is created for a service concept, just the way firms develop audit processes that are refinements of GAAS, or (3) after unilateral development of a service concept by a firm.

The threshold question at the outset of the firm service-development phase is whether the service concept fits comfortably in the firm's portfolio of service risks. The portfolio concept evaluates a service concept in the context of the firm's total risk posture, allowing that circumstances could differ from firm to firm.

The portfolio decision for a new service presumes that the firm has arrived at an understanding of the existing portfolio of service risks. In other words, it assumes that the firm understands its risk posture. Below is a template for assessing such litigation risks. It shows the process of identifying risks and their sources, quantifying the risk, and evaluating what should be considered.

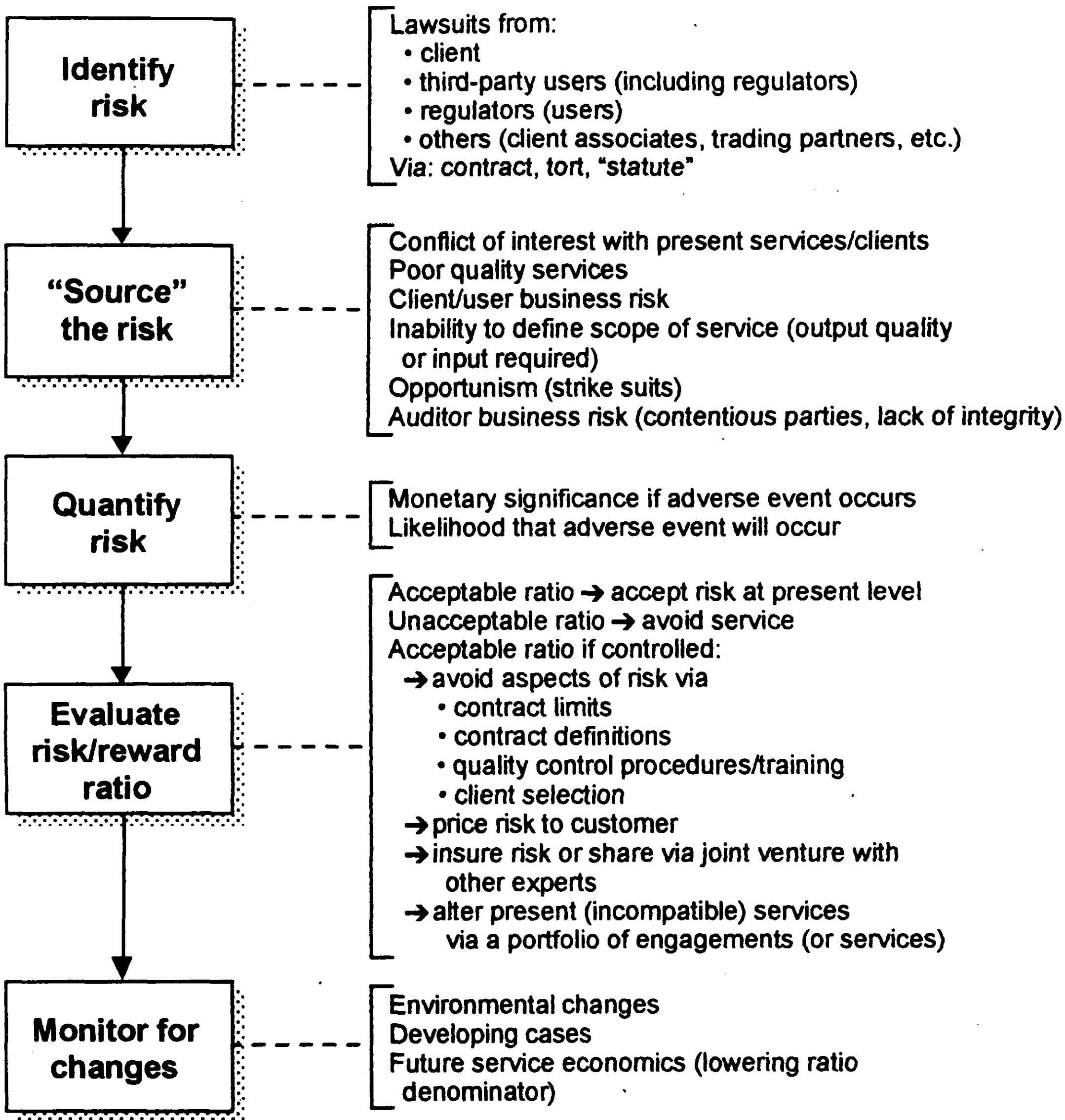
Returning to the model and assuming the new risks are acceptable in terms of the portfolio, the firm would have to decide whether to define standardized procedures, say, in a manual or pamphlet, and whether there should be cautionary language in the work product or a required engagement letter. Again the full range of possible contractual protections would be considered, including loss-limiting provisions and ADR. In making these determinations, the firm would have to consider the effect on the salability of the service.

Firm Quality Controls

The next set of decision processes are quality control measures that are also litigation risk control measures. In the case of training with risk control components there is interaction with the AICPA side of the flowchart. AICPA training is not presented as a line item in AICPA service development because it is a quality control measure and because of its potential interaction with firm training activities.

Client acceptance and continuance procedures are singled out because they have played so large a role in efforts to control litigation risk in recent years, but all the other quality control procedures are relevant.

The final phase is firm litigation management. This includes insurance coverage for particular services and situations.



Monitoring the Litigation Environment

A post-final phase that does not appear on the flowchart is monitoring. We cannot know the future of the litigation environment. The variables are too great in number and too interactive. Every firm and the AICPA should therefore monitor changes and consider whether adaptive responses are needed.

Entry Barriers

During its work, the Committee identified barriers to moving into new assurance services. The significant barriers identified and the actions recommended to surmount them are summarized here. In some instances efforts have already been begun to overcome barriers.

CPA Mindset

Many CPAs have not considered the need for a customer-orientation. Standard services, to a large extent, are governed by regulation or standards. For example, audits are mandated by the SEC, the form of financial reporting is determined by GAAP, and the form of the audit service and resulting report are mandated by GAAS. For nonauditors, tax reporting is imposed by the IRS and the form of and reporting on unaudited financial statement services are governed by SSARS. As a result, many practitioners are not adept at identifying latent needs and convincing clients about the benefits of nontraditional services. Some may believe that the market for GAAS audits of GAAP financial statements is strong and will continue to be so for the foreseeable future. Practitioners need to think about structuring services and outputs to benefit users.

Actions/recommendations: Committee change management efforts have been directed at communicating relevant issues to the profession. The Committee has made or scheduled over 160 live presentations from coast to coast, developed videos that have been distributed to over 10,000 individuals and firms, and written over a dozen articles. The Committee's report includes materials aimed at helping CPAs identify needs and turn them into services. In addition:

- The new Assurance Services Committee is expected continue the communications effort.
- The AICPA plans to begin work on a new vision of the CPA. This effort can be helpful in creating a shared vision of the need to be market oriented.

Ownership/Capital Structure of CPA Firms

The ownership structure of CPA firms is, in most cases, limited by statute. These limitations can inhibit the profession's growth. For example, the need to operate in a partnership or near-partnership form makes it difficult to raise large amounts of capital necessary to become technology leaders. The capital requirements are likely to increase as firms need to embrace and use new technologies. The AICPA Code of Professional Conduct limits the ownership interests of anyone who is not a CPA actively involved in the firm. Under the code, nonCPAs cannot own more than one-third of a firm and persons not actively involved as members of the firm providing services to the firm's clients as a principal occupation cannot have ownership interests. State accountancy laws are generally even more restrictive.

Because of limitations on nonCPA ownership, it may be hard to attract the specialized talent necessary to bring new services to market. NonCPA owners must adhere to the AICPA Code of Professional Conduct. The traditional service model similarly inhibits CPAs from joint venturing with nonCPAs.

Actions/recommendations: The Committee did not study this issue in sufficient depth to make specific recommendations. However, it believes that the issue is significant and that the AICPA should study it further.

Measurement Criteria

Some of the new assurance services proposed lack meaningful measurement criteria for the CPA to use in judging information quality. In some cases it would be helpful for the AICPA to create the criteria. But, there are no guidelines for considering when AICPA-created measurement criteria would add value to users, elevate the quality of practice, or benefit practitioners.

Actions/recommendations: The AICPA should study when it should set criteria rather than leaving criteria identification to individual practitioners. It should also consider what is needed in a set of criteria. Specific criteria should be established where needs have already been identified. Service development task forces are being created to consider measurement criteria for electronic commerce and health care assurance. In addition, the AICPA should consider the development of standardized measures of nonfinancial data that relate to the financial statements.

The deliberate pace historically used to establish measurement criteria may confound CPAs' ability to enter new markets quickly. The research and development of standards is generally time consuming. And the exposure process generally slows the development further. (The third general attestation standard requires that the measurement criteria underlying attest engagements either be established or disclosed in sufficient detail in the presentation, which often is an unwieldy option.) The Assurance Services Committee, through its service development task forces, could be empowered to establish criteria, but the due process model in place is unduly slow in view of a quick-to-market mandate.

Actions/recommendations: The Committee recommended that the AICPA speed up the process of criteria development without sacrificing the elements that give the criteria validity and overall quality. The process should envision a continuous improvement in criteria rather than an attempt to create a definitive set of criteria before it is issued. Feedback loops will allow improvement over time and create higher value. The Institute can use the web to communicate ongoing considerations with interested parties. This can instigate user feedback and justify a less extensive formal exposure of proposed criteria.

Competencies

The broad concept of assurance services entails competencies that are not common within the profession. CPA firms will have to obtain these competencies through education, training, or selective recruiting of candidates other than typical accounting majors.

Actions/recommendations: The Committee identified the competencies needed for the future. It has recommended changes to university curricula. The AICPA should focus on competencies in its CPE catalog, for example, identifying specific competencies that courses concentrate on. The Committee recommended that AICPA research the supply and demand of people hired by CPA firms. Although the Institute already studies the market for new graduates, it does not disseminate information about how many people are hired by firms and what portion of them are new accounting graduates.

The profession is not, as a whole, on the leading edge of technology. While there are some practitioners who have become experts and leaders, by and large the profession lags the leading edge of the market. A major step into the future will require a substantial upgrading of technological capabilities and having access to cutting edge technologies, such as smart agents.

Actions/recommendations: The Committee has recommended that the AICPA assist members to substantially increase their technology competencies.

Marketplace Permissions

The extension of CPA services outside of accounting, auditing, tax, and traditional consulting is likely to encounter some resistance by customers. For example, at the retail level many people think of CPAs solely in terms of taxes and cutting costs, not in terms of value-added information.

Actions/recommendations: There are a number of actions that the AICPA can take to brand new services as CPA services. Some of the actions already being taken include creation of relevant AICPA-developed measurement criteria for electronic commerce and health care effectiveness, marketing research done in support of ElderCare Plus, and coordination of the message with the AICPA image campaign.

Lack of Market Orientation

The CPA profession has not historically been nimble. Its traditions and culture are based on a deliberative model. As a result, although some CPAs might react promptly to market opportunities, the profession does not generally react quickly to create the critical mass necessary to develop new markets.

Actions/recommendations: The Committee recommended that the AICPA undertake actions to help develop opportunities. For example, the AICPA could create alliances to help promote opportunities and communicate opportunities to members.

For many of the new service opportunities there has been no articulated demand by potential customers. They might not be aware of CPAs' ability and willingness to perform new assurance services. They are not asking CPAs for them. Thus, CPAs might doubt that a market exists and might be reluctant to undertake the work necessary to enter new markets.

Actions/recommendations: Future communications should include descriptions of new services actually offered by CPAs, perhaps in the *Journal of Accountancy*.

Litigation Risk

Many of the new assurance services lie in untested legal waters. The fear of increased risk to practitioners might dissuade some from entering the market.

Actions/recommendations: The Committee has developed a model for mitigating the risk of legal liability in new assurance services. The AICPA should consider expanding the tort reform effort to include all assurance services. It should investigate the real risks (for example, actual litigation and whether the professional liability insurance carriers cover these engagements) and communicate its findings to members.

Regulation

State boards of accountancy often have the authority to regulate assurance services even though the services fall outside traditional financial reporting models. For example, the Uniform Accountancy Act (July 1994 version) provides that "practicing public accounting" means that the individual (1) holds out and (2) provides one or more kinds of services involving the use of accounting or auditing skills. The commentary recognizes that "licensees are subject to regulation in a wide range of activities as to which nonlicensees are subject to no regulation at all." Subjecting the CPA to rules that competitors don't have to follow could increase the cost of providing a service or decrease its value to users.

Actions/recommendations: The Committee has had continuing contact with the National Association of State Boards of Accountancy, although no specific recommendations have been made. The Special Committee on Regulation and Structure of the Profession (Mingle Committee)e is studying the broad area of regulation.

Location

State boards of accountancy regulate persons providing services in their states. It is unclear what regulatory model will be used when CPAs provide services over the Internet and the physical location of the CPA bears no relation to the location of the information, its preparer, or the user. If states over-regulate in this area, opportunities for electronic distribution of services might be stifled.

Actions/recommendations: The AICPA, perhaps the Mingle Committee, should study this issue.

SEC Rules

The SEC could take the position that some of these services violate its independence rules and prohibit CPAs from providing them for audit clients.

Actions/recommendations: The Committee's recommendation to the SEC asserts that the AICPA's concept of independence in this area is responsive to the public need.

New Assurance Services

Considering the assurance needs of customers and the capabilities of CPAs, the Committee developed business plans for six assurance services with potential revenues of over $1 billion each. Each business plan assesses market potential and identifies the steps that CPAs must take to begin offering the services. The Committee described another seven it believed to be good opportunities, but didn't develop them in detail. It also surveyed CPA firms and identified hundreds of additional services currently being provided.

Risk Assessment

Entities are subjected to greater risks and more precipitous changes in fortune than ever before. Managers and investors are concerned about whether entities have identified the full scope of these risks and taken precautions to mitigate them. This service assures that an entity's profile of business risks is comprehensive and evaluates whether the entity has appropriate systems in place to effectively manage those risks.

Business Performance Measurement

Investors and managers demand a more comprehensive information base than just financial statements; they need a "balanced scorecard." This service evaluates whether an entity's performance measurement system contains relevant and reliable measures for assessing the degree to which the entity's goals and objectives are achieved or how its performance compares to its competitors.

Information Systems Reliability

Managers and other employees are more dependent on good information than ever and are increasingly demanding it on-line. It must be right in real time. The focus must be on systems that are reliable by design, not correcting the data after the fact. This service assesses whether an entity's internal information systems (financial and non-financial) provide reliable information for operating and financial decisions.

Electronic Commerce

The growth of electronic commerce has been retarded by a lack of confidence in the systems. This service assesses whether systems and tools used in electronic commerce provide appropriate data integrity, security, privacy, and reliability.

Health Care Performance Measurement

The motivations in the $1 trillion health care industry have flipped 180 degrees in the last few years. The old system (fee for service) rewarded those who delivered the most services; the new system (managed care) rewards those who deliver the fewest services. As a result, health-care recipients and their employers are increasingly concerned about the quality and availability of health care services. This service provides assurance about the effectiveness of health care services provided by HMOs, hospitals, doctors, and other providers.

ElderCare Plus

Older Americans prefer to live independently in their own homes. But as their capabilities decline, they require an increasingly broad range of services to do so. They and their loved ones are concerned about the comprehensiveness and quality of these services. ElderCare Plus assesses whether specified goals regarding care for the elderly are being met by various care givers.

Other Opportunities

Seven other assurance services are described in a common format dealing with the source of demand for the services, the benefits to users, the market potential for CPAs, and the competencies required.

Hundreds of Additional Possibilities

The Committee surveyed 21 large and medium-sized CPA firms to find out what assurance services they provide. Over 200 services were identified.

Produced by the AICPA Special Committee on Assurance Services

Assurance on Risk Assessments

The Special Committee on Assurance Services identified risk assessments as an assurance service CPAs can provide. To consider whether you want to provide this service, you can read the service description and the descriptions of available practice aids and CPE.

Background

The owners or managers of a business entity determine its objectives, strategies to achieve them, and business processes to implement strategies. Business processes —

- affect the entity's relationship suppliers, workers, capital providers, customers, and competitors.
- facilitate compliance with regulatory and ethical codes, and
- affect communications with others such as stockholders, regulators, and the public.

Business risk has been defined as "the threat that an event or action will adversely affect an organization's ability to achieve its business objectives and execute its strategies successfully" (The Economist Intelligence Unit 1995). A business faces many threats to achieving its objectives and to executing its strategies, and business risks can be classified in many ways. For example, one useful way is:

1. ***Strategic environment risks*** — threats from broad factors external to the business including changes in customers' tastes and preferences, creation of substitute products, or changes in the competitive environment, political arena, legal/regulatory rules, and capital availability.

2. ***Operating environment risks*** — threats from ineffective or inefficient business processes for acquiring, transforming, and marketing goods and services, as well as loss of physical, financial, information, intellectual, or market-based (such as a customer base) assets, loss of markets or market opportunities, and loss of reputation.

3. ***Information risks*** — threats from the use of poor quality information for operational, financial, or strategic decision making within the business and providing misleading information provided to outsiders.

Assessment and control of business risks has become increasingly important in recent years due to changes in information technology and related developments. Information technology has reduced the time available to react to environmental change, streamlined and altered the design of business processes, and changed the optimal form of organization. These developments have led to a de-layering and downsizing of businesses, resulting in fewer employees devoted to control activities, and empowering employees to make decisions. These changes affect traditional controls over information and safeguarding of assets.

An example of a new risk is the risk of deterioration of market-based assets, such as the value of a supplier network that an entity uses to outsource its production and inventory management. Outsourcing increases business risks because a key trading partner may fail to perform. Owners and managers need to know about the risks unique to their failure to perform.

CPAs who serve small clients or large ones can provide risk assessment services as well as designs of systems for risk assessments performance measurement, and monitoring of trading partners as well as assuring a business trading partner of its own capabilities.

Independent auditors have experience identifying and evaluating risks faced by financial statement preparers, as well as experience designing control systems to safeguard assets and limit financial information misstatement risks. CPA firms already design control systems over transactions, auditors evaluate "going concern" situations, and the auditors evaluate the means by which management mitigates the risk of business failure. Auditors also have considerable knowledge of the risk environment through their knowledge of GAAP, laws and regulations, and business practices throughout the world.

Independent assessments of existing risks faced by an entity, as well as a comprehensive assessment of potential risks and the firm's systems for dealing with risks would be of considerable value to the owner/manager of a small business trying to meet stated objectives, or to a corporate director wishing to fulfill a fiduciary obligation to stockholders. Stockholders would benefit indirectly from knowledge that management is aware of relevant risks, and that those running the business are informed about routine and special risks faced by the business.

Risk assessment services include

- identification and assessment of primary potential risks faced by a business or entity,
- independent assessment of risks identified by an entity, and
- evaluation of an entity's systems for identifying and limiting risks.

Description of services

Management and those charged with oversight of the entity's operation need to consider the risks faced by the entity. Risk assessments are vital for evaluating overall performance of management, including performance in monitoring the environment for possible future developments.

Nature of Assurance Services. A CPA's risk assessment services can improve the quality of risk information for internal decision makers (management and directors) through independent assessments of the *likelihood* of adverse events of a significant magnitude and *measurement* of the possible magnitudes of the events if they occur. Measures can be quantitative, such as dollars or units or qualitative, such as manageable, difficult, or catastrophic. The auditor can also identify and evaluate management's response to risks, including the adequacy of the systems for monitoring risks and changes in the risk environment, and management's follow-up of adverse situations that arise despite attempts to limit risks.

The CPA can also provide *context services* to assist management, directors, and outside users in evaluating risk information. Context services relate to the overall decision making environment with respect to business risk, and might include consideration of the overall objectives and strategies as well as the environment of an entity.

Benefits to Customers and Others. The principal users of risk assessment services are likely to be the owners of a small business or senior management and the board of directors of a larger business. Owners and senior management can be more effective if they are aware of all important risks, and have an evaluation of their possible magnitude and impact on the business. Effective management requires identification and evaluation of special risks faced by the entity, and awareness of the need to develop formal systems for risk assessments, monitoring and management. Directors of corporations would find risk assessment services useful in carrying out their oversight responsibilities.

Risk assessment services need not involve attestation to third parties although risk assessment could be the basis for a report under the attestation standards. Outsiders, including trading partners, investors, creditors, and regulators would benefit indirectly from assurance services to management and/or directors since senior management and the directors are informed in a timely way about the risks faced by an entity. Outsiders may not need explicit reports of results, but may be best served by knowledge that timely risk assessments are in place and that risks are being identified, monitored, and evaluated for follow-up by senior management and oversight by directors.

Consulting Opportunities. Consulting opportunities exist to help companies mitigate the effects of risks identified, especially for smaller entities that do not have risk management expertise. Companies of all sizes can reduce their exposure to risk by using specially designed systems to deal with risks identified. Smaller companies, especially those that are growing rapidly may not have a clear view of the objectives and strategy of a business or the risks of achieving those objectives. CPAs can assist management in defining objectives and comprehensive strategies (including operations, financing, taxation, and financial and compliance reporting systems) as necessary conditions for meaningful risk assessments. The CPA may also add value by providing advice about possible threats to achieving broad business objectives and information about the risks faced, including the continuing need to monitor risks and maintain the "responsiveness" of the clients' organization.

CPAs can help smaller clients identify possible ways to mitigate excessive. Solutions include:

- installation of risk reduction systems and processes,
- transferring or sharing of risk (through hedging, derivatives, insurance, contracting, pricing, or joint ventures and alliances), and
- avoidance or risk through prevention at the source (that is, "stay out of the business").

Owner/managers can also benefit through periodic (say quarterly) consultations with the CPA to follow-up identified risks. These reality checks can help focus attention on matters that will appear in the accounting records in a future period, but only after the business has been damaged by adverse events. Timely corrective action regarding risk exposures can be valuable in maintaining viability and profitability.

Market Considerations

Potential Customer/Payers. Likely customers for risk assessment services are management and the board of directors for large entities and owner/manager of smaller entities. Payment for services will generally be made by management of the enterprise.

Marketplace Permission. CPAs have long provided some risk assessment services to their clients, and have applied the same principles in selecting and retaining their own clients. CPAs are generally perceived as having knowledge about risks in preparing historical financial statements, and in risks of doing business in the contemporary economy. Furthermore, CPAs have a reputation for taking an extremely broad view of the operation of an entity since historical financial statements are *comprehensive* in nature — including good news and bad news, assets, liabilities, contingencies, and some assessment of viability and future potential for a company.

Market Size and Growth Potential. Officers and directors of all public corporations are facing increased accountability (and liability) relating to the conduct of their duties. Since all public corporations and many private companies face these risks, the market for directors' use of risk assessment services is potentially large. It is more difficult to assess the size of the senior management market, but for small and medium sized firms, this market may also be large. Fees in the range of 10 to 20 percent of the financial audit fee might be possible for continuing risk assessment services on an annual or periodic basis. Fees for *ad hoc* risk assessments and design of new risk assessment and control systems could be several times the annual audit fee.

Competition. CPAs have a natural advantage over competitors because auditors have long been associated with the reduction of the risk of material misstatement of financials, and more recently with the design of internal accounting controls. Some users already look to the auditor regarding assessing the risk of sudden business failure, and the risk of illegal and fraudulent acts by clients. A major advantage of CPA firms is their reputation for taking a *comprehensive* and *independent* view of a firm's activities. Auditors deliver objective views, not merely the good aspects about which an entity prepares its advertising. This gives a considerable credibility advantage to the CPAs as a group in performing risk assessment services.

Market Access. Auditors already have access to senior management and corporate directors through the financial statement audit. Extension of services to include other risk assessments is natural in that the customer and the payer are one, are already known to the auditor, and a trusting relationship involving confidentiality of services between these parties has been established.

Why CPAs Should Provide This Service

Reputation and Skills. CPAs already have a reputation for providing risk assessments. Expertise of some CPAs would need to be enhanced and extended by study of business strategy, environment, objectives, and processes, and particular types of risks. A side benefit of comprehensive risk assessment services would be the likelihood of improved audits of financial statements (and improved viability of the client's business) that would result from extended business risk assessments by CPAs.

Cost/Benefit to the CPA Provider/Similarity to Existing Services. Risk assessment services by CPAs are a natural add-on to recurring auditing services. In fact, it will be important to distinguish risk assessment services from services already included in an ordinary financial statement audit. Additional work *is required*, and the cost and value of these services is likely to be substantial, because senior personnel of the CPA firm are likely to conduct the services.

Competency Considerations

As stated above, CPAs have many of the skills required for risk assessment services. However, education in elements of business strategy and the external environment, and training in areas of special risks will be helpful.

Investments (Other than New Skills and Knowledge)

A comprehensive list of risks faced by businesses in general, customized lists for particular industries, regions, and organization types might be developed for a competitive edge for CPAs. Since CPAs are recognized as the "control people" it is especially important that reliable comprehensive risk assessment procedures be developed to protect the CPAs' reputation as auditors. Communication networks for sharing results of risk assessments and risk realizations across a broad class of clients would add value and would be a substantial benefit to CPAs in differentiating their risk assessment product from those of potential competitors.

Risk assessment information could become the basis of a profession-wide data base for accumulating experiences on risk assessments and special risks of companies. The data base could be used to provide a valuable "benchmark" for risk. While confidentiality of contributors would be important, it would not be as difficult as for financial information that might identify a particular client. This is because experiences with risks may be more generic than particular dollar amounts in financial matters.

Other Aspects of this Service

Need for Standards. Individual CPAs could develop their own criteria for identification and assessment of risks faced by their clients. Such criteria could be stated in communications with management and directors. It seems likely however, that value could be added if the profession pooled its resources to identify criteria for identification and assessment of risks. Identification of criteria would allow a more uniform output that would help directors understand the level of assurance that they receive.

Technology Requirements. Risk assessment aids that will allow efficient identification of risks and their quantitative assessment are possible. An example of such risk assessment tools for financial instruments is RiskMetrics developed by J. P. Morgan. RiskMetrics allows an objective measure of the possible variation of future returns (or "value at risk") based upon historical volatility measures. While such measures are not now operational for non financial assets, variance measures could be developed through data base sharing by CPAs.

AICPA Actions Needed to Initiate and Support this Service. For some risk assessment services, the AICPA would need to consider development of criteria for assurance services about risks. Included would be identification criteria, assessment of level of risk criteria, and possible reporting to officers and directors. For other services, neither standards nor criteria would be essential. Provision for a risk assessment data base could add value for risk benchmarking services, but is not essential.

Practice Aids

Practitioners Publishing Company has developed practice aids that CPAs can use to deliver the risk assessment service. These aids appear in PPC's *Guide to Nontraditional Engagements*. Some of them can be downloaded from PPC's home page. The aids include:

- Proposal letter.
- Procedures (work) program.
- Engagement letter.
- Risk identification questionnaire.
- Transmittal letters/reports.

CPE

The AICPA CPE staff has developed a self-study CPE course, Risk Assessments. The course focuses on:

- how the service fits into the concept of assurance services.
- identification of the skills and resources needed to provide the service.
- identification of client needs.
- delivering the service.

Assurance on Business Performance Measures

The Special Committee on Assurance Services identified assurance on performance measures as an assurance service CPAs can provide. To consider whether you want to provide this service, you can read the service description and the descriptions of available practice aids and CPE.

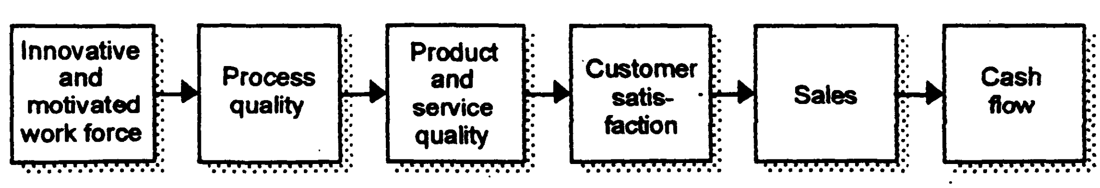
Background

Organizations today are defining their strategic objectives and goals by focusing on areas such as customer satisfaction, shareholder value, growth, and financial performance. These organizations are also using performance measure systems to help realize their strategic goals and objectives.

After the organization's strategic objectives and goals are defined, specific activities related to those objectives and goals are assigned to its managers and employees. The successful completion of those activities should result in the organization accomplishing its objectives and goals. A performance measurement system is then used by the organization to motivate managers and employees to perform the specific activities, monitor whether the defined activities are being performed, and evaluate whether the defined activities are consistent with their strategies.

As indicated in the book by Robert S. Kaplan and David P. Norton, *The Balanced Scorecard — Translating Strategy into Action* (Harvard Business School Press, 1996), these performance measurement systems do not rely on traditional financial accounting measures like earnings per share or return on investment, but often focus on operational measures such as cycle time and defect rates. The focus on operational measures is consistent with the organization's strategic objectives and goals that focus on customer satisfaction and other items that cannot always be measured using financial information. Accounting measures, like cash flow and sales, are lagging indicators. Leading them are such conditions as customer satisfaction, product and service quality, process quality, and an innovative and motivated workforce. When performance measures include leading indicators, they facilitate achievement of ultimate goals.

Leading-Indicator Performance Measures



The CPA has traditionally provided assurance on financial accounting measures by providing attest services on historical financial data in accordance with generally accepted accounting principles (or another comprehensive form of accounting). The CPA also has the opportunity and, generally, the ability to provide assurance on the operational measures.

Description of Services

This service focuses on providing assurance regarding an organization's use of both financial and non-financial measures to evaluate the effectiveness and efficiency of its activities. These performance measures can be used for assessing performance at any level within an organization or they can comprehend the entire organization. Performance measures can also be used to evaluate how the organization is performing in relation to others in the same industry.

Nature of the Services. There is a spectrum of services that CPAs can provide. Each service could be performed as a separate engagement or several could be combined into one engagement. The potential services are as follows:

Organizations that have performance measurement systems —

- Assessing the reliability of information being reported from the organization's performance measurement system.
- Assessing the relevance of the performance measures (that is, how well they inform management about achievement of the performance objectives they have set).

Organizations that do not have performance measurement systems —

- Identifying relevant performance measures.
- Helping design and implement a performance measurement system.

All organizations —

- Providing advice on how the organization can improve their performance measurement system and their actual results.

Assessing the Reliability of Information Being Reported From the Organization's Performance Measurement System. The CPA assesses the reliability of the information being reported from the organization's performance measurement system (that is, are they measuring things right?). A typical system reports the actual results of an activity and compares them to an appropriate performance objective. Those results may be financial (for example, the cost of producing a product) or non-financial in nature (for example, the time it takes to produce a product). The CPA can then provide assurance as to the reliability of the information being reported.

Usually, an organization compares the results of its own activities against those of its competitors. In those situations, the organization may desire assurance as to the reliability of its own reported results and assurance that the results of the competitors used in the performance measurement system were obtained from a reliable source. The CPA can provide assurance as to the reliability of the reported results, and, through inquiry and examination, can determine whether the results of the competitors were obtained from appropriate and reliable databases and external information.

> *Example*: An organization might measure (1) the cost of its finance department, (2) the timeliness of receiving information from the department, and (3) the quality of information received from that department, against internal goals and the results of other organizations that are comparable in size and operate in similar industries. For each performance measure used, the CPA can examine records at the organization to provide assurance on the reported results. The organization might use measures such as costs as a percentage of revenues or full-time-equivalent number of employees to evaluate the cost of its finance department. The CPA can provide assurance on these reported results by auditing them. The performance measurement system might also measure the quality of information received from the department by summarizing the results of surveying senior management, board of directors, investors, and creditors about the quality of information they received from the finance department. The CPA can provide assurance on the reported results by determining whether the survey sampled a sufficient number of individuals and determining that the performance measurement system properly summarized the results of the surveys. If the system compares the organization's results against the results of its competitors, the CPA can make inquiries as to the source of the competitors' results (e.g., appropriate and reliable databases), agree the reported results to the source, and assess the reliability of the source.

Assessing the Relevance of the Performance Measures. The CPA assesses the relevance of the performance measures used by the organization (that is, are they measuring the right things?).

In this service the CPA obtains the organization's strategic objectives and assesses whether the performance measures used are consistent with those objectives. The CPA may be asked to assess the relevance of all performance measures used by the organization or just certain performance measures (such as those used by the shipping department). The CPA provides value to the organization by first being able to provide independent insights as to whether the strategic objectives are reasonable, achievable, clearly defined, and understood by the organization's employees. The CPA is able to provide such insights from the knowledge obtained from inquiries and observations as a result of performing attest services for the organization and other organizations in similar industries.

After the organization has clearly defined its strategic objectives and goals, the CPA can assess whether the organization has appropriate financial and operational measures. The right combination of financial and operational measures is one that simultaneously motivates employees to perform the activities that are necessary and monitors whether the strategic objective and goals are being met. When performing such service, the CPA might consider using the process established by Richard L. Lynch and Kelvin F. Cross in their book, *Measure Up! Yardsticks for Continuous Improvement,* (Blackwell Publishers, 1995). In that book, they describe a process of establishing measures by translating the organization's strategic objectives into operational terms for each core process (e.g., new product introduction, order fulfillment) and then into concrete operational measures for each department or component. These operational measures would be presented with financial measures to evaluate the results of the activities performed.

> *Example*: If one of the entity's objectives is to increase market share by a certain percentage within the next five years, the CPA can assess if the entity has developed a strategy that has a reasonable chance of accomplishing the objective. Such a strategy might include changes in activities to increase customer satisfaction, marketing campaigns, development of new and improved products, or acquisition of competitors. The CPA can assess whether or not the entity has developed operational and financial performance measures related to each significant activity within the strategy. Activities to be performed that increase customer satisfaction, for example, might include performance measurements related to the quality and delivery of the product. Quality and delivery are important measurements because a customer is only satisfied if the product and/or service meet or exceeds its expectations and is delivered in accordance with an agreed upon timetable. The sales department might have measures related to the timeliness of resolving customer complaints, the production department might have measures such as percentage of delivered goods returned, and the shipping department might have measures related to percentage of delivered goods returned and delivering goods to the customer when promised.

Identifying Relevant Performance Measures. For those organizations that do not have performance measurement systems, the CPA can help the organization identify relevant performance measures. This process for providing this service is the same as that for assessing the relevance of existing performance measurements. Similarly, the CPA may be asked to identify all relevant performance measures or just certain performance measures (for example, financial performance measures that should be used by the shipping department).

Helping Design and Implement a Performance Measurement System. A natural extension to identifying performance measures for an organization that does not have a performance measurement system is to help design and implement such a system (a consulting service). Because these systems use information that is processed by accounting and financial information systems, the CPA should be able to use his or her expertise of accounting and financial systems and assist with the design and implementation of a performance measurement system that is integrated with the other systems at the organization.

Providing Advice on How the Entity can Improve Its Performance Measurement Systems and Its Actual Results. Another related consulting service is to provide advice to help organizations improve their systems or operations. Management and the board of directors are continually (1) improving the functionality of their performance measurement system, (2) improving or modifying activities that do not appear to have met expectations, (3) reassessing whether the activities performed by their organizations are consistent with their business strategy, and (4) reassessing the appropriateness of the business strategy and goals. The CPA can assist in these efforts by identifying performance measures that are not relevant to or consistent with the organization's strategic objectives. Based on the performance of this service, the organization may conclude that it has not adequately defined its strategic objectives or communicated those objectives to its employees. The CPA might assist the organization with defining its objectives or developing a plan to adequately communicate those objectives to its employees.

The CPA can also assist management in improving their actual results by sharing "best practices" (the means by which a successful entity achieves its results) or by performing other consulting services, such as reengineering services.

The CPA might also assess the process used by management to establish its business strategy and develop a plan of activities to accomplish the strategy. Such assessment would consider the reasonableness and achievability of the strategy and whether the plan of activities is consistent with the strategy and properly designed to accomplish the strategy. The CPA can also consider whether the organization has a process to periodically reassess its strategy and plan of activities based on actual results.

Benefits to Customers and Others

The principal users of these services are senior management and the board of directors. Senior management might use these services to (1) assess whether their systems are properly measuring activities that are relevant to and consistent with their strategic objectives, (2) evaluate their employees, (3) measure actual performance against their objectives, or (4) identify those activities, processes, or functions that provide the best opportunities for improvement in performance. The board of directors might use this service to assist them with its oversight responsibilities.

Secondary users of these services are investors and creditors. They might use these services to determine if management is effectively using available resources and to assist them in selecting companies for investment. If the output of an organization's performance measurement system is favorable and accompanied by a report from a CPA, the entity may be able to obtain lower financing costs and/or increase its stock price. Such benefits could be obtained because of the additional reliable information that is provided to investors and creditors and it may also demonstrate management's ability to run the company.

Market Considerations

Potential Customers/Payers. The strategies of today's organizations include many items that appear to send conflicting messages to an organization's employees. As an example, senior management stresses to its employees that they need to become customer oriented by improving the quality and delivery of the company's products and services, but at the same time are focusing on efforts, such as downsizing and reengineering, to reduce costs. Such conflicting messages create a need for the organization to have a clearly defined set of responsibilities for its employees and a method for motivating the employees to do the right thing. A performance measurement system meets those needs and also helps senior management assess the effectiveness of its plan to accomplish their business strategies and goals and periodically reconsider the appropriateness of their business strategies and goals.

Because of the importance of a performance measurement system to an organization in accomplishing its business strategies and goals and the possibility that investors and creditors may request output from the system, senior management and the board of directors need to know that measures used in the system are relevant, the results are reliable, and that the system is properly controlled.

The services will generally be paid for by the organization. Investors and creditors may request that such services be provided, but are probably unwilling to pay for such services because an organization usually will incur the costs of services performed to satisfy its investors and creditors.

Marketplace Permission. CPAs have been providing audit and attest services on financial information for many years and are generally perceived as having business knowledge beyond historical financial statements. Therefore, it should not be difficult for CPAs to demonstrate that they have the ability to provide the services described in this business plan. However, as the services to be provided become more dependent on operational, as opposed to financial, matters, it might be difficult to convince users that CPAs are natural providers for this service.

Market Size and Growth Potential. Included in this business plan is a wide spectrum of services ranging from providing assurance on the reported results of several performance measures to identifying appropriate performance measures and designing and implementing a performance measurement system, with many services in between. The fees for such services could range from a an amount that is a good deal less than the annual audit fee (for providing assurance on certain reported results) to an amount that dwarfs the annual audit fee (for identifying measures and designing and implementing a system). Some practitioners are now providing the service for amounts that are double and triple the size of the recurring audit fees.

Competition. Consulting firms are positioned to provide these types of services because of their established credentials from publishing materials and providing consulting type services related to improving corporate performance and restructuring. Financial analysts and industry specialists are additional competitors because they are currently providing financial advice on corporate performance.

However, CPAs may be able to become strong competitors in this marketplace (1) because of their proven track record for providing assurance on reported results, (2) because they have access to and knowledge about all of the organization's activities through the audit relationship, and (3) the possibility that consulting firms and others may not be in a position to follow-up on their recommendations.

Market Access. The CPA has a significant advantage in that the CPA has access to the market for this service through their audit, review, compilation, and tax relationships.

Why CPAs Should Provide This Service

Reputation and Skills. CPAs provide an added value to these services because of their expertise and experience in performing quantitative analyses. This expertise allows CPAs to assist with the identification of performance measurements that are relevant and to assist the user with evaluation of the results of the performance measurement system.

Cost/Benefit to the CPA Provider/Similarity to Existing Services. This service is a natural add-on to the recurring auditing services because an audit of the financial statements will bring the auditor in contact with many of the activities that are being measured. However, it is not a byproduct of the audit because accessing the relevance of the performance measures is generally not incorporated in an audit of financial statements. Providing assurance as to the results of an activity being measured also involves additional effort because the activities being measured are not always financial in nature, and when they are, they are not always directly related to the financial statements being audited.

Competency Considerations

The primary existing skills of CPAs should be sufficient to provide assurance services on the results being reported, however the CPA will generally need additional training on establishing corporate strategies and developing business activities to accomplish those strategies in order to assess the relevance of the performance measures. Numerous books and articles have been published on these topics.

An expertise in the organization's industry is also necessary to evaluate the relevance of the organization's performance measures. The CPA might obtain this expertise by serving other organizations in the industry, attending training seminars, and/or affiliating him- or herself with a trade association or another entity that has expertise in the related industry. Such an affiliation adds creditability, aids in the development and identification of relevant performance measures and benchmarks, and enables the CPA to more effectively market the service in the industry.

Practice Aids

Practitioners Publishing Company has developed practice aids that CPAs can use to deliver the risk assessment service. These aids appear in PPC's *Guide to Nontraditional Engagements*. Some of them can be downloaded from PPC's home page. The aids include:

- Proposal letter.
- Procedures program.
- Engagement letter.
- Goals and action plan practice aids.
- Performance measurement progress report.
- Sources of industry information.
- Performance measurement identification practice aids.
- Illustrative reports.

CPE

The AICPA CPE staff has developed a self-study CPE course, Performance Measures. The course focuses on:

- How the service fits into the concept of assurance services.
- Identification of the skills and resources needed to provide the service.
- Identification of client needs.
- Delivering the service.

Systems Reliability Assurance

The Special Committee on Assurance Services identified Systems Reliability Assurance as an assurance service CPAs can provide. To consider whether you want to provide this service, you can read this service description.

Background

Developments in information technology are making far greater power available to enterprises at far lower costs. Competitive pressures mandate the exploitation of these capabilities. Enterprises can respond quickly to market threats and opportunities only if they have a vast array of reliable information available as promptly as possible.

Thus, organizations need on-line access to real-time, updated, reliable information. Information processing and ownership have become more distributed throughout modern organizations. Information systems — and the information they produce — are affected by:

- Continuous round-the-clock processing.
- Greater accessibility and greater dependence on enterprise-wide information systems in flatter organizations.
- Sharing of critical business information with strategic partners.
- Reliance on packaged systems.

Despite the enormous quantities of information and its ready accessibility, managements and boards of directors are concerned about whether the information they use for decision-making is timely and reliable. In other words, is the information of high enough quality to serve as a basis for important decisions?

The Report of the Council of Sponsoring Organizations of the Treadway Commission (COSO) notes that the quality of system-generated information affects management's ability to make appropriate decisions in managing and controlling the entity's activities. It states that the quality of information is affected by whether information is —

- Timely — Is it there when required?
- Current Is it the latest available?
- Accurate — Are the data correct?
- Accessible — Can it be obtained easily by appropriate parties?

Managements and boards are also concerned with related systems issues, such as security controls, that affect reliability of information indirectly.

Outsiders who rely on entity-created information — other than annual audited financial statements — have concerns about the reliability and timeliness of the information they use. They will demand more timely reporting including, in some cases, access to the entity's database. But, without CPA involvement, they will have no assurance about the reliability of the data they use.

It is impractical for the CPA using traditional approaches to audit data that are used for all of these purposes. Instead, the CPA's approach must involve the system itself. The most effective approach — given existing technology — is to provide assurance on the systems that produce the data.

Description of Services

Nature of Assurance Services. Systems quality assurance provides users with assurance that a system has been designed and operated to produce reliable data. System assurance involves testing the integrity of an information system. The CPA studies the system and analyzes the possible causes of defects in the data to determine if the system avoids them. While "effective" systems (when timing of reliability is not an issue) can rely on error detection and correction, real-time information systems must implement before-the-fact prevention strategy to make their output useful. This is analogous to the shift in assuring product quality. The old model was inspection-rejection-rework. But this model became uncompetitive with the more modern concept: continuous redesign of the product or production process to systematically eliminate all possible sources of defects. The more modern model is quality-by-design and continuous improvement. For information systems to provide decision-makers with continuously reliable information, accountants must abandon the historical error-detection-and-correction model and move to a reliability-by-design model. This involves rigorous review and testing by the CPA.

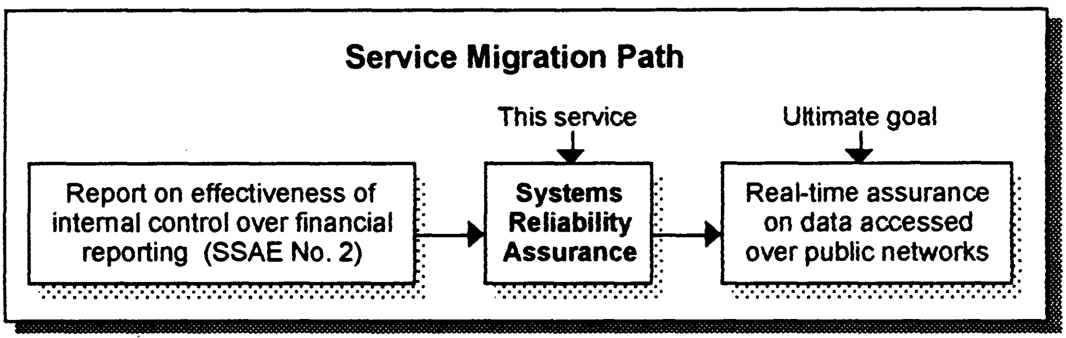
There are already several CPA services that deal with the quality of information systems. For example,

- Reports on the effectiveness of internal control over financial reporting measured against criteria (generally COSO) as of a point in time. (SSAE No. 2).
- Communication of conditions identified during a financial statement audit that could adversely affect the reporting of data in the financial statements. (SAS No. 60).
- Reports intended for other auditors. The two types of reports are (1) a description of controls at a service organization at a point in time and (2) selected tests of effectiveness to achieve specific control objectives over a period (generally six months). (SAS No. 70).
- Consulting services commonly involve systems design and implementation, but do not provide explicit assurance.

Although these are all useful services they do not provide information users with an indication of the quality of information coming out of the organization's systems over a period of time. Ultimately, the CPA could provide users with real-time assurance about systems quality. However, the state of the art and competencies within the CPA profession are not yet sufficiently advanced to provide this type of assurance.

Systems reliability comprises two general services:

- *Management service* — Assurance about the quality of systems that produce data for use by boards and management; this is a broader data set than merely that used for financial reporting.
- *External service* — Assurance about the quality of systems that produce financial reporting data used internally and externally; that is, contemporaneous data. Initially the service would involve regular, periodic reviews. Eventually, it would evolve into continuous, real time assurance. (This service would eventually evolve to also encompass data not related to financial reporting.)



Management Service. The CPA assesses the client's internal systems to determine if they provide reliable information for managing the business to achieve its goals. Much of the information used in employee and management decision-making does not come from the systems that produce financial statements reviewed during the financial-statement audit. Controls over these systems should be established. Preferably, they should be built in to assure good information; not added on to catch errors.

The systems might involve financial, market, resource, or process issues. Examples of specific data are:

- Information about customers, suppliers, and employees,
- Project costing/inventory procurement,
- Rights and obligations attached to contractual agreements,
- Business — as opposed to accounting — functions, and
- Competitors and market conditions.

This service differs from existing attestation services in that:

- It does not relate primarily to systems that produce data for financial statements (although these data could be used to prepare financial statements) but, rather, nonfinancial information critical to running the organization.
- It does not require management to assert in writing its belief that the system is reliable.

The CPA could report on management's assessment of systems, but more likely would report directly on his or her own assessment of the system.

External Services. The CPA monitors the functioning of the organization's systems to ensure that they provide reliable data. This service involves either regular or, ultimately, continuous oversight. It presumes some level of direct involvement in computer operations by the CPA. He or she would either (1) embed some level of monitoring or control in the client's system or (2) direct regular inquiries into client processing systems/databases. This service, while initially aimed at internal users, would have its greatest appeal to external users who want to rely on entity data delivered at interim dates and, ultimately, continuously.

The profession has recognized for some time the importance of moving towards continuous assurance of client data. For example, in 1978 the Commission on Auditors' Responsibility (Cohen Commission) stated:

> Much of the financial information used by shareholders and creditors [including interim financial statements] is produced through essentially the same process that produces annual financial statements.... The auditor with a continuing relationship with a company is uniquely situated to provide some degree of assurance that the information has been prepared responsibly.... If the auditor would increase his involvement with the company's financial reporting process, he would be able to offer some assurance on much of the financial information that is not now audited.

Evaluating controls over real-time systems must be computer-based. It is impractical — or impossible — to do it after the fact based on paper transaction trails. Data flowing through the system will be monitored and analyzed using CPA-defined rules. Exceptions to these rules trigger real-time warnings to call the CPA's attention to potential problem areas and issues that need immediate resolution.

Electronic sensors and software agents (some of which may be owned or controlled by the CPA) will be introduced at key checkpoints throughout the preparer's set of business activities.

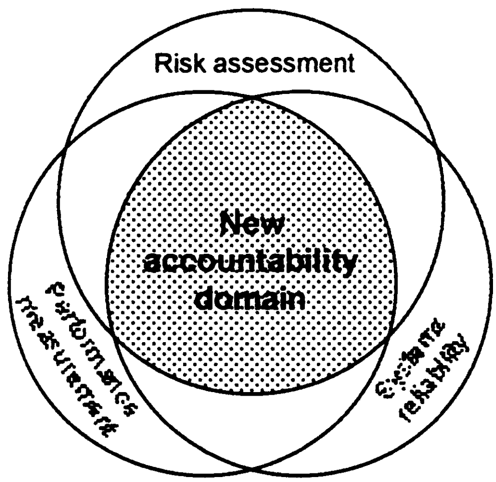
Sensors will lead to early and automatic identification of transactions, events, and/or relationships that are unusual and therefore demand immediate consideration. Redundant sensors would not demand any human consideration; they would simply override defective sensors. Assurers will use audit software agents to search for unusual patterns and/or corroborative patterns in transactions.

The CPA may provide general parameters to the software agent, such as industrial, macro-economic, and technological factors, but give the software agent discretion to add other factors or information appropriate in the circumstances. Agents may have adaptive, quasi-learning algorithms embedded to adjust to a constantly changing model.

Comparison to Other New Assurance Services. The systems reliability services are related to, but different than, other suggested assurance services.

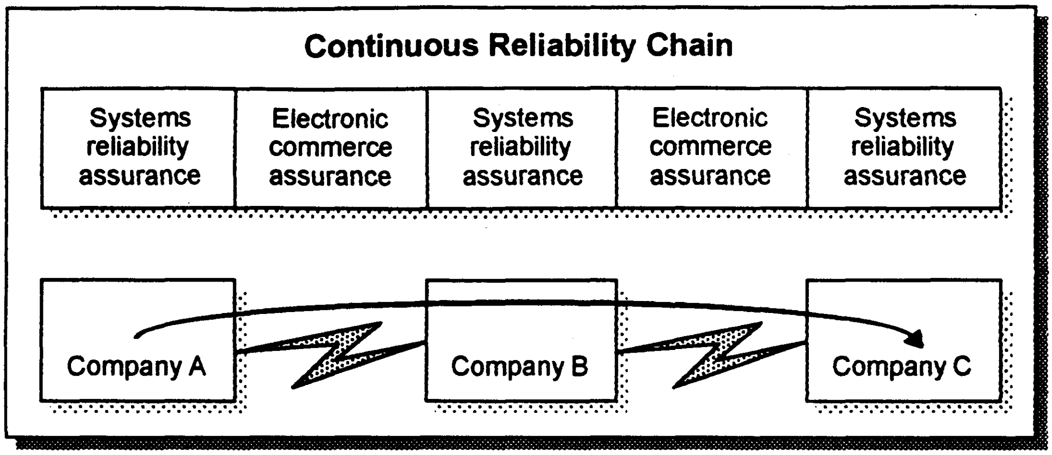
Risk assessments and business performance measures — Control starts with identification of objectives. The risk assessment service focuses on the linkage between objectives and risks; the performance measures service focuses on objectives, critical success factors, and performance measures. In each case, the service attempts to report information relevant to achieving objectives. The systems reliability service focuses on how well the information system fulfills its role. That is, does it provide the information it was established to provide? Accordingly, the service might also serve as a discipline over the data reported in risk assessments and performance measures.

The new accountability domain might lie at the intersection of the three services.



Electronic commerce — Systems reliability and electronic commerce services both deal with the integrity of electronic data. Further, both may deal with outsiders' access to the entity's database. Electronic commerce deals with security and integrity of *networks involved in the public exchange* of information. In contrast, the systems reliability external service deals with the reliability of an entity's *internal* database on which an outsider might rely.

In the future if CPAs are involved in providing assurance about both systems reliability and electronic commerce, users could have confidence in the entire chain of electronic information. For example, assurance about systems in both customer and supplier would be the subject of systems reliability engagements by those entities' CPAs; the electronic link between them could be the subject of an electronic commerce engagement.



Benefits to Customers and Others. Internal users benefit from the integration of systems and business operations. Often, the financial systems are designed to accommodate financial reporting, but fail to deliver additional useful data to managers. Managers and other employees must use data developed in systems that do not have the level of controls built into the financial reporting system. Thus, the data that influences operating decisions might be unreliable.

External users consider the quality of an entity's internal controls as a measure of management's ability and the reliability of data. When external users share EDI networks with the organization, their operating decisions might be made based on data emanating from the entity's database. They have legitimate concerns about whether the data (such as a decrease in a customer's inventory levels that initiates the supplier's production process) is reliable.

Public sector managers also need reliable real-time information to adjust their actions. In addition, there is a general interest in accountability for the use of public funds. It is important to design systems that reliably track nonfinancial data (such as outcomes) to measure whether public agencies are achieving their missions. Regulators and the community have an interest in public-sector enterprises' systems as a matter of public accountability. The public may demand reliable data on mission achievement before committing scarce public funds to individual agencies.

Consulting Opportunities. Engagements to assess the quality of a client's system will, in many cases, uncover problems in the systems. Myriad consulting opportunities will undoubtedly develop to improve systems by making them more reliable or efficient.

Market Considerations

Potential Customers/Payers. Organizations whose systems are to be judged will pay for this service. Management and the board can better plan and manage the business if they are sure that their internal systems are capturing useful information.

Payers benefit from the external service through the ability to provide assured information to the public markets quickly. For example, one large company has reduced its monthly closing routine to a day and a half (its error rate has dropped to about .04 percent) in part to provide timely information. To add value to this reporting model, a CPA would have to be similarly efficient. Conversely, it is unlikely that an organization that improved its methods to increase speed and accuracy would hire a CPA to provide assurance on this information if the service substantially delayed its disclosure.

Companies would also provide assurance about their systems to trading partners who transact business with them electronically. Some trading partners might insist on such assurance rather than rely on suspect information.

Marketplace Permission. CPAs already have credibility regarding systems that deal with financial reporting. The conceptual leap to these services is relatively short. As the practice of auditing evolves to address growing systems sophistication, this will fall more and more within the mainstream of auditing. Accordingly, marketplace permission will increase over time.

Market Size and Growth Potential. It is difficult to estimate the potential size of the market. However, companies make decisions affecting trillions of dollars annually. To obtain the information necessary to transact this business, they spend hundreds of billions of dollars on information technology. (The U. S. Department of Commerce estimates that private investment in hardware alone — not including software or employee costs — is $200 billion per year). If they spent only an additional 1 percent of the total to ensure system quality, a market in the billions would be implied. The trends suggest that the importance of this area will only increase over time because of the increasing dependence on information systems.

Competition. As the technology becomes more sophisticated, there will be competition from technology specialists. These entities will not be CPAs/assurers who provide services on systems, but systems specialists who provide an assurance service. CPAs will have to leverage three competitive advantages:

1. Their access to client personnel and the relationship that already exists with the client.
2. Their reputation for independence and objectivity.
3. Their familiarity with controls integrated in financial reporting systems.

Market Access

CPAs have access to the key decision makers in senior management and the board of directors who would be the primary customers for this service. The CPA will access the market through existing audit relationships.

Competency Considerations

Application of Current Skills and Knowledge. Many CPA firms have competencies that are naturally suited to performing this service. However, they often have to draw on the talents of several individuals within the firm. The services would make use of expertise in internal control, business processes and management, and information technology.

New Skills and Knowledge Required. For the external service (that is, real-time reporting) CPAs will have to develop more extensive information technology skills and software tools than are currently common.

Risks, Obstacles, Timing Considerations

The management service could be delivered fairly quickly, based on existing technologies. While CPAs might have to overcome barriers regarding their ability to deal with nonfinancial information, these barriers are not insurmountable. CPA firms can use the COSO model and other existing tools for internal control to assess system quality. The quality of a system will likely depend on management's objectives, so there might not be a need to establish additional measurement criteria. Since the service is intended for internal use, there should not be a high level of litigation risk.

The external service is more demanding. A certain level of assurance based on regular monitoring could be provided for some sophisticated entities based on existing technology. However, for all but the very largest, most sophisticated entities, additional technology — for example, ubiquitous sensors and massive redundancy — would have to be deployed before the CPA could report continuously on the systems.

Computerized audit programming tools will continue to evolve. Advances will include:

- Models that "learn" from procedures actually executed (for example, the results of tests of controls reveal unexpected errors, which leads to revisions of control risk, which, in turn, leads to audit program changes).
- Models that include artificial intelligence/expert system components, which deal with specific audit judgment areas, such as loan loss reserves and inventory obsolescence.
- Models that are networked across a portfolio of audits, which allow for more complete assessments of inherent risks by industry.
- Models that represent, at a high degree of detail, the business activities of the producer and permit the assurer to create an information expectation against which to assess the reliability of information contained in the producer's database.

The technological infrastructure needed to provide assurance services in the information-intensive future will require significant development and continuing maintenance. There will be a need for heavy capital investment to provide traditional services and to develop the tools and prepare the personnel to perform new assurance services. Information technology costs will mount for hardware and networks, operation centers, software development, and, perhaps, joint ventures and alliances.

The profession has traditionally been thinly capitalized. Potential competitors, on the other hand, include capital-rich industries — from financial institutions to systems houses. This makes CPA-non-CPA alliances more likely.

Electronic Commerce Assurance

The Special Committee on Assurance Services identified Electronic Commerce Assurance as an assurance service CPAs can provide. To consider whether you want to provide this service, you can read this service description.

Background

The First Wave — EDI. Doing business electronically became a way of life for certain companies in the 1980s. Many larger companies required their vendors to use electronic data interchange (EDI) to place orders, notify them of shipments and send invoices.

As the use of EDI grew, standards began to develop into a full body of standards, known as ANSI X12. This allowed vendors to deal with their customers using common electronic transaction formats. ANSI X12 is widely used by many organizations, but the standard is ignored by some industry giants such as WalMart and Kmart. The most powerful player in the distribution chain often dictates the standard for all of its vendor and customer relationships. This means that at least some of the participants in the distribution chain must accommodate multiple EDI systems mandated by their more powerful business partners.

This trend also helped grow a new service business called value added networks (VANs), which specialized in receiving electronic transactions, translating them to/from ANSI X12 or other proprietary formats if needed, transmitting them to the intended recipient, and providing acknowledgment of receipt to the sender.

Although the use of EDI was driven by large companies, many smaller suppliers, transportation companies, and banks rapidly adopted it. EDI has enabled many companies to achieve business efficiencies through the use of techniques like just-in-time inventory management, rapid response to changing customer buying patterns, and lower cost through the elimination of paper and its related processing activities. Microcomputer software has enabled smaller organizations to participate fully in the use of EDI. Some organizations have used EDI as a technology enabler to completely reengineer how they do business.

For purposes of this discussion, EDI refers to inter-company execution of transactions electronically and substantially without supporting paper documentation. Examples of EDI include:

- Electronic linkage between manufacturers, wholesalers, and retailers which allows retailers' computer systems to order and release goods from manufacturers' or wholesalers' inventories and make direct electronic funds transfers to the sellers' accounts without paper-based purchase orders, receiving reports, or invoices.

- Electronic claims filing, processing, and payment systems between primary and secondary health care providers and third-party payers.

In more advanced EDI systems, retailers may be able to directly examine or adjust manufacturers' production schedules to effect the timely delivery of the desired goods. EDI systems are increasingly common in manufacturing, retailing, wholesale distribution, healthcare, financial institutions, and investments.

Electronic commerce is a broader term and may involve individual consumers as well as small and large companies engaging in a variety of transactions electronically without paper documents.

The Second Wave — Increased Breadth of Transactions and Diversity of Users. The second wave of electronic commerce is now upon us. During this wave, we will see many more types of electronic transactions and a volume of business conducted electronically. This wave already includes retail consumers who use it for electronic shopping. The second wave also involves a broad range of banking and financial transactions, and expanding network services, such as the Internet.

As businesses move toward paperless systems and electronic commerce, the number and types of electronic transactions and documents will explode dramatically. However, electronic transactions and documents can be easily altered, deleted, and duplicated. This attribute may cause the integrity of electronic transactions and documents to be later questioned, causing disputes regarding the terms of a transaction, such as a purchase, or the content of the document, such as a contract.

The anonymity of electronic commerce makes it crucial that people know with whom they are doing business. Without this assurance, the authenticity of the transaction may be questioned, fraud might occur, and payments for certain transactions might be lost or diverted. In the first wave, traditional EDI transactions were typically conducted between parties who were acknowledged business partners and are usually covered by an overall contract specifying key transaction and dispute-resolution principles. However the second wave often involves transactions between virtual strangers conducted over an unsecured network, such as the Internet. The potential for fraud, dispute, and other business risks in this new environment obviously is much greater.

The growth of electronic commerce requires the reduction or elimination of the barriers that companies normally employ to bar unauthorized outside access to critical company information and resources. Literally hundreds of persons outside of the company may be able to authorize or influence changes in production levels, shipments of goods, and funds transfers. The promise of electronic commerce is best fulfilled through the relatively unrestricted flow of information and decentralization of authority. The new system of commerce requires new concepts of control, authorization, confidentiality, and anonymity.

This suggests new markets for CPAs to provide assurance and other services related to electronic commerce. Participants in electronic commerce will not only require assurance that their own systems are secure, but also that appropriate controls exist in supplier and customer organizations to limit access to authorized users and to protect an organization's confidential information. In addition, the broad use of electronic commerce introduces the need for new privacy controls.

A Peek at The Third Wave — A New Electronic Society. The third wave of electronic commerce will probably have attributes along the following lines:

- *Ubiquitous* – Virtually all business transactions will be documented electronically
- *Cashless* – Transactions will be settled electronically using digital cash. This may involve different concepts of money and different roles (or no role) for banks.
- *High Integrity* – The supporting systems must provide high transaction integrity and security or they will not be accepted.
- *Intelligent Agents* — The use of these kinds of tools to automatically search for the best options and execute transactions on behalf of their clients will become widespread.
- *Continuous Testing* — Third Wave systems will allow the CPA to perform continuous testing procedures as transactions are being processed.

Risks in Electronic Commerce — The Need for Assurance. The second and third wave growth of electronic commerce will create many abuses and concerns that can be addressed by CPA assurance services. Some of the potential abuses and concerns caused by this new environment include:

- *Intentional attacks* — Hackers and/or competitors may actively attack a system to obtain access to confidential data (such as credit card numbers), impersonate legitimate customers, steal and resell proprietary information, intentionally corrupt information, set-up "back doors" for future passive surveillance of transaction activity, or similar acts.
- *Transmission failures* — As transactions travel through a network, they generally are subject to numerous processing steps, translations, and store-and-forward processes. These activities introduce risks such as unintentional errors, lost transactions, and duplication of transactions.
- *Lack of authentication* — A fundamental requirement of all commerce (electronic and otherwise) is knowing with whom one is dealing. In paper-based commerce, this requirement is met through the use of letterheads, logos, authorizing signatures, face-to-face contact, and other cues. Electronic messages lack these traditional identifiers and increase the risk that you may unintentionally deal with the wrong party, or deal with someone impersonating another party. The use of public networks heightens this risk substantially.

- *Loss of trust* — The authentication risks may be mitigated through the use of digital signatures and other encryption technology. These technologies often require services of a trusted individual or trusted system to verify that keys and digital signatures actually belong to a designated individual (similar to a notary public function or a securities signature guarantee). There is obvious risk of abuse of this trusted relationship and a related need for assurance regarding the activities of the trustee (organization, individual, system, etc.).
- *Theft of identity* — Without proper authentication techniques, it will be relatively easy for criminals to assume the identity of a party and conduct a variety of transactions in that party's name.
- *Window dressing* — Some of the control and security procedures provided by electronic commerce vendors will be offered primarily to encourage use. They will be viewed as cosmetic marketing-oriented features rather than true controls and might not be seriously adhered to. The markets will require assurance that claimed security and control procedures are being followed religiously.
- *Inappropriate use of individual and organizational profiles* — As more company and individual transactions are processed electronically, it will be possible to accurately and intimately profile individuals and companies based upon the pattern and content of their transactions. There will be a tremendous appetite among commercial enterprises, government agencies, and unscrupulous individuals for this information. There will be both legitimate and illegitimate markets for the collection and resale of this information. Companies and individuals within companies will be tempted to sell information captured in the context of confidentiality. Many companies will claim to have constructed Chinese walls to prevent unauthorized distribution of information. Users will require assurance that effective procedures are in place. The markets will also require generally accepted control and security standards against which vendors can be measured. This may become a mandated service for companies engaged in electronic commerce.
- *Effects of economic pressures* — Third party security and control providers will emerge to provide confidential, secure, verified, encrypted intermediary services to electronic commerce vendors. Their stock in trade will be the protections they provide to users. This will become a competitive service area very quickly, and cost will be a driving force in determining the market winners. Cost containment increases the risk that control and security will be short changed, which leads to the need for assurance by the customers and transaction originators who rely on these services.

Various players in the electronic commerce arena can benefit from additional assurance regarding these kinds of risks. The current EDI software providers, and organizations that use it, are currently candidates for controls and security assurance services. As electronic commerce extends to retail consumers, this area will grow in importance and the market for assurance will grow accordingly.

Overview of Potential New CPA Services

Nature and Benefits of the Service. CPAs can provide a valuable service by helping to address the risks and promoting the integrity and security of electronic transactions, electronic documents, and the supporting systems. The CPA would provide assurance to electronic commerce participants that the electronic commerce service providers and the tools and systems in use are functioning in accordance with accepted criteria for electronic commerce integrity and security. This would be similar to today's attest engagement regarding management's assertions that its internal control structure conforms with COSO.

Integrity services provide assurance that (1) the elements of a transaction or document are as agreed among the parties and (2) the systems that process and store transactions and documents do not alter those elements.

Security services provide assurance that (1) the parties to transactions and documents are authentic and that such transactions and documents are protected from unauthorized disclosure and (2) the systems that support transaction processing and storage provide appropriate authentication and protection.

	Integrity	***Security***
Transactions and documents	Elements were as agreed.	Parties are authentic. Transactions and documents are protected.
Supporting systems	Elements not altered through processing or storage.	Appropriate authentication and protection systems exist.

Example 1 — The Value-Added Network Service Provider. In this example, a CPA reviews, evaluates and tests the control, integrity, and security procedures of a value-added network provider and would provide assurance to third parties regarding the provider's compliance with appropriate criteria. This is similar to the service-auditor report concept, set forth in SAS No. 70, *Reports on Processing of Transactions by Service Organizations*, except that: (1) there are no recognized measurement criteria for reporting under SAS No. 70 and (2) a service auditor's report is designed as an auditor-to-auditor communication and is not particularly well suited for a broad range of third parties.

Example 2 — The Internet Electronic Commerce Software Package. In this example, the CPA reviews, evaluates and tests the control, integrity and security procedures incorporated into a software package used for electronic commerce and provides assurance to third parties (for example, purchasers and users of the software) regarding compliance with appropriate criteria. For example, Intuit's Quicken software provides electronic banking services. The CPA could test the integrity and security features of this package to provide assurance that only the designated user can initiate transactions against his or her bank account. Netscape's Internet software provides secure electronic commerce capabilities. The CPA could provide assurance that credit card and other personal information sent over the Internet using this software, is protected from manipulation and disclosure. The CPA's report could be an important feature to software users.

Example 3 — The Trusted Key and Signature Provider. Several organizations verify that a particular key to be used for encryption or digital signature actually belongs to the intended party. The CPA could provide assurance that the "trusted provider" follows appropriate procedures in establishing the identity of key holders and provides appropriately secure systems on which to maintain and distribute such keys.

Example 4 — The Digital Bank Electronic Payment Card. Several forms of digital electronic payment systems are being developed. Under one system, the user purchases an electronic "smart card" containing payment units that could be used for electronic purchases (such a system has been in use for several years in France to replace coin telephone calls). Visa and Mastercard have recently announced agreement on a standard for protecting electronic credit card transactions. The CPA could provide assurance to the issuers of such cards that they cannot be tampered with and to the users of such cards that the electronic payment systems and transactions are secure.

Other Related Services

There are many additional examples of assurance services that could be provided. There are also high potential consulting and service provider opportunities for CPAs in the electronic commerce marketplace. For example:

- *Consulting services* — Consulting services would be directed toward assisting clients in (1) designing, developing, implementing, and monitoring electronic commerce systems and tools that provide high integrity and security and (2) developing ways to use electronic commerce effectively to achieve business objectives.

- *Electronic commerce service provider* — Rather than provide assurance or consulting services, the CPA could become a provider of electronic commerce services. Examples of these services include:
  1. Directly processing electronic transactions using high-integrity systems (that is, providing a value-added network service).
  2. Obtaining and storing complete copies of the electronic transactions and documents.
  3. Developing and storing a digital signature of electronic transactions and documents that indicates their authenticity and detect alterations.
  4. Providing authentic keys to be used for encryption, or digital signatures, by operating the systems used to generate, process, and maintain such keys (that is, operating a "trusted key server").

Market Considerations

Potential Customers/Payers. Electronic commerce assurance services could be provided to any or all parties entering into, or related to, an electronic transaction. For example, any transaction could have parties such as a buyer, a seller, a broker, an agent, a banker, a transaction processor, a network service provider, one or more lawyers, or a transfer or escrow agent. In addition, developers of software (EDI software, Web browsers, Internet security tools) and providers of electronic commerce services are also potential customers.

There are several possible payers for electronic commerce assurance services. They include, at minimum, the companies that may specify an electronic commerce system for use by their vendors or customers as a condition of the business relationship. The party imposing a system on other business entities may wish to have assurance that the specified system contains inherent controls to avoid any liability to its captive users. It also may require independent assurance regarding system integrity and reliability as a source of reassurance to their current or potential vendors/customers. Vendors of electronic commerce systems and services may require independent assurances from CPAs to give credibility to their marketing efforts.

CPA providers of electronic commerce assurance services may arrange non-traditional payment schemes for their services. For example, CPAs might not charge the party mandating the use of an EDI or other electronic commerce system. They might be paid a fee by the software vendor/installer for each customer who agrees to use system. Or, the CPA might receive a variable fee based upon the volume of transactions which ultimately pass through the system. Additionally, the CPA might be hired by the system user(s) to provide additional assurance services with respect to controls and security within the users organization relative to the system.

Transaction-based or volume based pricing, rather than the traditional fee-for-service pricing, provides an opportunity for the CPA to price assurance services in relation to the risk being assumed. As in the case of an insurance company where the risk increases with the number of policy holders and the size of policies, the risk in providing electronic commerce assurance is related to the number of third parties assurance is provided to and the related volume of electronic commerce. CPAs could adopt pricing structures for these services that are responsive to the risks involved.

Marketplace Permission. The CPA is uniquely positioned to provide these services. It is a logical extension of the CPA's existing competencies in systems and control environments. Existing client relationships and the CPA's reputation for integrity, confidentiality, and objectivity help ensure access to the parties whose cooperation may be necessary to carry out these engagements. While additional competencies may be required, CPAs may already be the most qualified to offer these services.

Market Size and Growth Potential. There are two primary potential markets for electronic commerce services: retail and commercial.

Retail marketplace — According to Woolford Marketing, an Internet marketing organization:

Current users of retail electronic commerce (nobody knows for sure): 40 million.
Projected users in 2000 (from Microsoft, Sun, and others): 500 million world wide.
Average age: 35.
Average household income: $55,000.
Expected primary Internet use:
1) shopping.
2) education and entertainment.
3) business.

Primary transaction medium: credit card.

These users might pay for assurance that their transactions will not subject them to financial risk, invasion of privacy, and harassment from unwanted solicitors. At present the average annual credit card fee is $35 and the average credit card annual volume of business is over $1,000. Most individuals have and use more than one credit card. Assume consumers are willing to pay $.50 to $5 per year to assure that the most intimate details of their financial life are not abused and that the commercial environment they use is secure. On this basis the world wide assurance market for Internet retail is $500 million to $5 billion over the next few years.

Commercial marketplace (U.S.) — It is expected that electronic commerce will eventually become ubiquitous and that a high percentage of business transactions will be carried out electronically. Participating organizations will want assurance regarding the integrity, security, confidentiality, and anonymity of the electronic marketplace. Some pertinent statistics regarding the U.S. portion of this marketplace include:

Total Business Enterprises > 20 Employees: 440,000.
Total Business Enterprises < 20 Employees: 4,500,000.
Gross Domestic Product: $7 trillion.

The forgoing excludes governmental enterprises which could also be major users of assurance services. Assuming that virtually all businesses with over 20 employees and 50 percent of businesses with under 20 employees will become involved in electronic commerce yields about 2,500,000 users representing more than 80 percent of the country's GDP. If these enterprises are willing to pay an average of $50 to $250 a year for the integrity of their electronic marketplace, then the market is worth $1.25 to $6.25 billion.

Competition. Other providers have begun to enter this market. But no one dominates it or has developed a set of measurement standards that are universally accepted.

Why CPAs Should Provide This Service

CPAs provide the objectivity and integrity needed for this kind of service. Others might be able to provide the technology, skills, and the investment; but when independent assurance is needed or when disputes arise, the CPA profession's ethical standards and traditions should be very valuable to the parties involved. Access to existing clients and knowledge of their systems and integrity assurance needs would most likely create an initial marketing advantage.

CPAs may have a head start on other possible competitors because of the focus on internal controls in the historical financial statement audit. The competencies required for control assessment relative to historical financial statements are much the same as those required for the integrity and security control assurance service. There is a natural extension of these into the transaction-related and other electronic commerce assurance services described above. While many CPAs lack the computer literacy and related tools necessary to perform these services, most nonCPA competitors lack the CPA's knowledge of internal controls and assessment techniques.

Competency Considerations

Application of Current Skills and Knowledge. CPAs have the ethical standards and principles needed to ensure the integrity of electronic transactions and documents. They have skills in evaluating evidence, planning the extent of validation as a function of the effectiveness of the system of internal controls, and reporting to third parties on the results of their work.

New Skills and Knowledge Required. CPA firms wishing to offer electronic commerce assurance services will require additional competencies. To provide this service at a low cost, automated techniques will be needed. Firms will have to develop or acquire software agents, sensors, and other technology based tools. Some additional skills and knowledge will include information technology and digital communications, encryption and digital-signature principles, and high-volume information storage and retrieval.

Smaller practitioners may offer services to their clients who are required to use one or more EDI systems to satisfy mandating vendors or customers. Because many small practitioner clients will need to use multiple EDI systems, a single firm will not be able to provide significant assurance services to everyone in the information chain. This will have the effect of requiring special skills provided by niche players for each EDI system. EDI segments of the electronic commerce assurance market should therefore become available to any firm that is willing to develop the competencies necessary to deliver the service.

Initial Investments (Other than New Skills and Knowledge). The CPA providing certain of these services (for example, those involving continuous testing) will probably have to invest in hardware, network connections, and software applications. These resources will need to be highly secure and ensure high-integrity processing on a 24-hour basis. This technology infrastructure is likely to involve a high initial investment and continuing investments for maintenance and upgrades.

AICPA Actions Needed to Initiate and Support This Service

The AICPA has established a service development task force to further develop this service. Its efforts include:

- Developing measurement criteria for use in this service — Criteria for Integrity and Security over Electronic Commerce (CISEC).
- Developing guidance for practitioners who want to provide electronic commerce assurance.

Produced by the AICPA Special Committee on Assurance Services

Assurance on Performance Measures — Health Care Providers

The Special Committee on Assurance Services identified Health Care Performance Measurement as an assurance service CPAs can provide. To consider whether you want to provide this service, you can read this service description.

Background

Traditional financial statements are primarily limited to data that are both historical and financial. This information is often not responsive to the decision-making needs of users, who often cite desires for forward-looking information and nonfinancial information. Assurance on performance measures focuses on providing assurance with respect to one type of non-financial information.

Performance measures provide a meaningful method of evaluating an entity's operations. They are needed by both internal and external users. *Internal* users need information on enterprise effectiveness to make efficiency and quality improvements, like adoption of best practices. This is discussed in a separate performance measures service. *External* users need information on accountability, whether the entity has effectively used available resources, and whether it is deserving of further investment.

The service has many potential applications in both the commercial and public sectors. For example, public education institutions might be called on to show that they are adequately educating students. Ventures might be called on to show that common resources have been effectively deployed. Insurance companies could show that claims are handled appropriately. Recently an airline company provided independent assurance to customers about its safety procedures.

This is one example of a performance measurement service: assurance on the effectiveness of health care providers. The health care industry accounts for one-seventh of the U.S. economy; total annual volume is over $1 trillion. All individuals have personal concerns about health care. The aging of the population over the next several decades will result in increasing demands for, and concerns about, health care.

In the past, individuals' health services were provided primarily through fee-for-service arrangements involving employer-paid health insurance companies or government-sponsored programs (Medicare and Medicaid). Recently, the trend has changed: Managed care networks are replacing the traditional fee-for-service model.

In the new model, the networks negotiate with health care providers on cost and coverage. Thus, the cost to the purchaser is established in advance, as is the level of service to be provided. The key variable becomes the effectiveness of care. This environment creates a new set of risks and rewards for health care providers. Since revenue is fixed, their economic incentive is to reduce service costs, possibly by reducing services delivered. Thus, customers (individuals and their representatives, such as unions and employers) are concerned that their health care needs will not be met effectively.

The trustees for the Medicare Trust Fund predicted in June 1996 that the federal programs will go bankrupt by 2001. There is increasing evidence that the government programs will gravitate towards managed care, like their private sector counterparts. Any form of change that caps costs will require assurance that care is provided when needed.

The effective provision of health care is critically important to all segments of American society. CPAs' independent assurance allows people to make more informed decisions about their most important concern. It is both in the public interest and in the profession's interest.

The U.S. health care system is a complex network of interrelated parties. For example, it can be represented as follows:

Ultimate consumer	*Consumer representative (payer)*	*Provider representative/ manager*	*Immediate provider*	*Provider organization*
Patients	Employers	HMOs	Doctors	Physician groups
	Government	Managed care organizations	Nurses/nurse practitioners	Hospitals
	Unions	Insurance companies	Other providers	Clinics (including treatment and rehabilitation)
				Nursing homes
				Home health care providers

CPA assurance over all the providers and provider groups in the system could yield confidence in the health care delivery system as a whole, in addition to specific assurance over the various components.

Overview of Potential New CPA Services

Nature of the Service. CPAs could structure services on health care effectiveness in a number of ways. For example, the CPA could report on the accuracy of statistical reports or report directly on the quality of care. The former suggests an attestation-type service (pass/fail on conformity with criteria). The latter provides a range of types of opinions (for example, better/worse than expected or quantitative measures) or report forms (for example, reporting on care actually received or on the provider's quality control system). The discussion that follows presumes that CPAs will be engaged to report on the quality of care actually provided.

CPAs can assess and report on the quality of care delivered by the health care provider. The measures can be those that would be of interest to consumers, for example, mortality, length of stay, and patient satisfaction. The services could be provided for hospitals, HMOs and similar operations, managed care firms (which, unlike HMOs, provide no care; they merely steer participants to clinicians), physician groups, and individual practitioners.

Benefits to Customers and Others. Potential payers are those that pay for health care — generally employers. They could use this information to make informed decisions in choosing hospitals, HMO plans, or doctors. Companies that provide health care benefits want to balance cost and employee satisfaction. They negotiate price but want to make sure that their employees receive needed care, both for employee morale and to reduce absenteeism and maintain optimum productivity.

According to *Business Week* (April 8, 1996), for example, many large companies rate the quality of care provided to their employees:

- GTE examines medical records and quizzes doctors from its medical care contractors to create elaborate report cards comparing quality.
- Marriott rates HMOs that bid on contracts; quality criteria count 70 percent of the score.
- Pepsico demands that HMOs produce outcomes data and participate in continuous quality improvement.
- USAir compares treatment of its employees with nationwide data and scrutinizes variances.
- Xerox requires HMOs to supply comparative medical data.

Other Related Services. In addition to assurance services, consulting opportunities arise in:

- Helping providers measure the effectiveness of their services.
- Improve the services they render.
- Reducing costs to provide services.

Market Considerations

Potential Customers/Payers. Potential users are individuals making health care decisions and employers or others who provide health insurance. They need outcome information to make informed decisions.

The CPA might be paid by the users. More likely, he or she will be paid by the health care providers themselves. The providers will pay CPAs for this service either because it provides competitive advantage or because users demand it. In 1995 an assistant executive director of a system representing 800,000 employees predicted that only health plans that demonstrate high quality will still be in existence by 2000. Trends suggest that managed care companies, which heretofore competed on the basis of cost control, will, in the future, compete on how care is managed. Users will demand certain information to reduce uncertainty and suppliers will provide it or face a competitive disadvantage in obtaining business.

Some observers believe that the government might require providers to report this type of information. But even if it doesn't, current competitive trends suggest that an unregulated market might demand this service. Currently hospitals and other health care providers advertise to gain market share. A report on effectiveness provided by one competitor might force other competitors to make similar information available.

The public is becoming attuned to receiving this type of information although, at present, it is provided inconsistently using criteria that vary substantially.

Marketplace Permission. CPAs face permission problems. They score high in integrity and objectivity. They are generally recognized as competent in testing and reporting results. However, the subject matter is far afield from the traditional financial-reporting model. It might be difficult to convince users that CPAs are preferred providers of this service.

The concern can be mitigated in several ways: CPA firms currently do consulting work in the health care area and their reputation there can be leveraged to enter this market. Or the CPA profession can become involved in setting the standards against which health care entities report. Alternatively, the service can be structured to focus on CPAs' natural advantage — the validation of numerical data (for example, comparing a hospital's statistics to industry averages).

Market Size and Growth Potential. The health care market had been growing rapidly — as much as 18 percent annually — until its growth was slowed due, in large part, to the shift to managed care and other cost-containment efforts. In any case, it is unlikely that the market will get smaller in the near future, given the aging of the population and the cost of medical advances. Trends might shift costs (away from hospitals, for example, to outpatient services and home health care providers) but won't reduce them overall.

Consumers want to reduce the uncertainty related to their expenditures. If the cost of uncertainty reduction is similar to that in financial markets — in the range of 10 basis points on transaction flows — a potential annual market of $1 billion ($1 trillion x .001) is implied.

Competition. Others have recognized this market need and are moving to fill it. For example, the National Committee on Quality Assurance (NCQA) has developed criteria (Hedis) for measuring the quality of care provided by HMOs. The criteria are very rudimentary, but are in use and are being improved. NCQA reviews the data provided by the HMOs through location visits and examination of patient records.

A similar system exists for hospitals, administered by the Joint Commission for Accreditation of Health Care Organizations. This organization, established by the American Medical Association and hospital groups, reports on more than 11,000 organizations in a three-year cycle.

In the summer of 1995 representatives of groups representing 80 million customers met in Jackson Hole Wyoming approved a plan to collaborate with managed care organizations to develop formulas for measuring the effectiveness of treatments for selected illnesses.

In some cases, local providers or governmental agencies have provided similar information.

Individual health care plans have also developed measures for their own use. Consultants such as Towers Perrin are also potential competitors.

The competition appears real and substantial. However, the range of proposed solutions implies that the market is fluid and that there is no consensus on what information consumers would find most helpful.

Market Access. CPAs can bring value to users by writing measurement standards (or participating in their development) rooted in the needs of patients. Once the measurement criteria are developed the profession can develop a service to provide assurance on reported measures.

An entry point for individual CPAs might be based on the services, such as audits, they already provide to hospitals and other health care entities. In any event, the market seems ready to demand data, and the profession should stand ready to step in to assure the quality of data supplied.

Applicability to Small Firms. Smaller practitioners dominate services to physician groups and smaller providers of extended care facilities (nursing homes). (Large firms dominate services for the larger hospitals, HMOs, PPOs, insurance carriers, and the other elements of the health care continuum which are characterized by large size.)

Many physician groups are being spun out of HMOs even as others are being acquired. Specialty groups are forming consortiums to provide services to multiple HMOs. HMOs are contracting with selected medical providers for many of their needs. As a result, there may be many more small business entities in the health care mix than was originally expected.

If HMOs are required to issue fitness reports to third parties regarding the quality of their care, they will, in turn, impose reporting and, perhaps, assurance requirements on their contractors. Therein lies the opportunity for small firm assurance services. The assurance provider for a large HMO (most likely a larger firm) might then rely on the assurances provided by the contractor's CPA firms in building their assurance report on the quality of the HMO taken as a whole. The opportunities for smaller practitioners, and for large firms as well, depend a lot on how the current revolution in the health care field settles out.

Current developments suggest that health care subcontractors (individual doctors, physician groups, and clinics) may be contracting with multiple HMOs. If this proves to be the general rule, it will not be cost effective for them to be reviewed separately by the auditors for each of their HMO customers. Rather, they should submit themselves to a single review which would be supplied to all of their HMO customers.

Why CPAs Should Provide This Service

CPAs' reputation for objectivity and skills in measurement and reporting provide competitive advantage. Other parties that might provide this type of service have direct interests in the results. CPAs are independent; their only interest is the quality of the data. Their reports would likely be seen as preferable because of the CPA's objectivity.

Competency Considerations

Application of Current Skills and Knowledge. The primary existing skills CPAs could employ are those used to identify assertions, understand systems, design tests, and evaluate and report results.

New Skills & Knowledge Required. The skills and knowledge requirements would be substantial. For many CPA firms this might entail hiring new types of people. Larger firms, for example, would likely hire MDs to work on the engagement teams.

Risks, Obstacles, Timing Considerations

Major obstacles exist in the lack of CPA credibility in this area. Related to that is the lack of competence resident within the profession to deliver the services. Competence can be acquired; credibility is more difficult to achieve.

Potential legal liability is uncharted. The medical area is a minefield of legal risk. An accounting firm that attaches itself to claims about medical effectiveness might get hit by shots taken at the doctors. The recent securities tort reform legislation does not appear to provide protection against claims in this area.

Other Aspects of this Service

Need for Standards. There is a critical need for useful measurement criteria. It would be best if the CPA profession were actively involved in their development. Various parties are already developing standards in the health care area. The NCQA, Joint Commission on Accreditation, the Rand Corporation, and the Jackson Hole group either have or are working on standards. Researchers, insurance, and pharmaceutical companies are also developing measures on an ad hoc basis. In March 1996 the National Institutes of Health announced its intent to sponsor development and testing of health care measures.

Standards rooted in ultimate consumer concerns will be considered most relevant regardless of any future changes in health care delivery. Employers and networks can best judge effectiveness of health care from the standpoint of their constituents.

Technology. Major technology investments are not necessary. However, the volume of items to be measured might require the development of specialized software to track and analyze important measures. For example, mortality rates can be more meaningful if adjusted for factors such as patients' individual clinical data and relative severity or morbidity of afflictions.

AICPA Actions Needed to Initiate and Support this Service

The AICPA has established a task force to create a service model and participate in the development of measurement criteria.

ElderCare Plus Assurance

The Special Committee on Assurance Services identified ElderCare Plus as an assurance service CPAs can provide. To consider whether you want to provide this service, you can read the service description and the descriptions of market research and available practice aids and CPE.

Background

The population of the United States is aging. The U.S. Bureau of the Census estimates that by the year 2000 16.6 million people in the United States will be 75 years of age or older; approximately 4.3 million people in the United States will be aged 85 and over. Many of these people will be widows who did not handle finances while their spouses were living. It is also estimated that persons age 65 and over controlled between $11 trillion and $13 trillion of wealth.

Increasingly, people are living to ages where assistance is needed in remaining in their own homes or for institutional care. In the past, they normally relied on members of their families, many of whom lived close by, for this assistance.

But now, younger adults often find it necessary for both spouses to work outside the home to provide an acceptable standard of living. As a result, the younger generation does not have the time available to care for aging parents. And as our society has become mobile in following job opportunities, many family members now live far away from their elders as the latter begin to require care and assistance.

Needs such as these could be met by government. However, government agencies have not been very successful in rendering services in these areas. The cost of infrastructure to care for the aging population in public facilities would be extremely large in an era when there are calls being made to downsize government.

Neither have governmental agencies been very successful in protecting elderly people from crime and from ruthless and unscrupulous persons who prey on the elderly. In addition, many of the potential clients are fiercely independent and would call on government for assistance and oversight only in extreme and unusual situations.

When there is a breakdown or lack of public oversight or performance, private initiative is needed to take its place. An example is the growth of private schools in areas where people perceive that public education systems are inadequate. For all of the factors mentioned, heirs and relatives of elderly persons are validly concerned about the care being provided the elderly person and about preserving the wealth concentrated in that age group. And they are likely to look for nongovernment solutions.

Overview of Potential New Services

Nature of the Service. CPAs can provide a valuable service to family members by providing assurance that care goals are achieved for elderly family members no longer able to be totally independent. This service would rely on the expertise of other professionals, with the CPA serving as the coordinator and assurer of quality of services based on criteria and goals set by the customer. The purpose of the service is to provide assurance in a professional, independent, and objective manner to third parties (children, family members, or other concerned parties) that the needs of the elderly person are being met.

The assurance services include performing procedures to measure how effectively care providers meet goals established by the third party or client. These procedures might include:

- Accounting for routine financial transactions and reviewing them for reasonableness and for adherence to established criteria.
- Supervising investments and accounting for the estate. Traditionally, bank trust departments have performed this service and may continue to do so, but with supervision by, and reporting to, the applicable CPA.
- Investigating and providing information for handling of unusual or unexpected situations, such as home maintenance and repair or medical emergencies.
- Inspecting logs, diaries, or other evidence to determine whether care givers are meeting the performance criteria agreed upon with the customer/client.
- Periodic reporting to children or other family members as to activities, including a complete accounting of all financial transactions.
- Periodic reporting to children or other family members on the degree to which care providers are meeting the criteria for care established.

Other Related Services. The assurance services may be blended with consulting/facilitating services and direct provision of services. Those other services could include the following:

Consulting/facilitating services. Consulting and facilitating services include:

- Meeting with third parties or clients to establish standards of care expected. This could include providing the third party with a list of the services available in the community and working with the third party or client to establish:
  - Goals for assistance.
  - Delivery plans, indicating service providers required to accomplish goals.
  - Expectations of required level of performance from each service provider, including identification of criteria for measurement of performance.
- Assisting third parties or clients in selecting care providers for each type of assistance required, communication of expectations regarding level of service to each care provider, and establishing performance measurement systems.

Direct service provision. Direct service provision includes:

- Receiving, depositing, and accounting for customer's income, making sure that expected revenues are received.
- Paying bills and conducting routine, ongoing financial transactions for client. This could be done within parameters set by the third party, such as monetary limits beyond which approval is required, and could have additional safeguards, such as direct mailing of bank statements to the third party.
- Supervising investments and accounting for the estate. Traditionally, bank trust departments have performed this service and may continue to do so, but with some supervision by and reporting to the applicable CPA. (It is not contemplated that the CPA would actually invest the estate funds.)
- Making arrangements for the appropriate care (for example, in-home sitters, cooks, or retirement facility care), paying for it, and periodically visiting the client to assure that care is being received at the appropriate level.
- Arranging transportation for clients. This could be done on a pre-arranged basis with the third party or could be done at the specific request of the client, assuming that the client is coherent and reasonably able to request it in a logical manner.
- Supervising household expenditures and making arrangements for unusual or unexpected requirements, such as home maintenance and repair and medical emergencies.

Range of Services. The services contemplated here constitute several levels of assurance — from total stand-aside assurance where performance is measured against agreed-upon criteria to direct provision of services where the assurance is implied by the CPA's reputation for honesty, independence, objectivity, and code of ethics. It is not contemplated that the CPA would provide traditional assurance services on the services he or she also provided directly.

Other. In some cases, institutional care may be the only acceptable alternative. In that case, CPAs could offer services at the institutional level, such as reporting on quality of care at assisted living or nursing facilities based on certain criteria. Such a service could be provided for an individual or for a group of people living in an institution.

Benefits to Customers and Others. Potential customers would use this service to assist elderly people to maintain a quality of life and degree of independence and dignity that might not otherwise be possible. Many elderly persons are institutionalized simply because there are no acceptable alternatives. At a minimum, this service may help to defer the necessity for customers to enter institutions or other assisted living arrangements.

Market Considerations

Potential Customers/Payers. The client is the elderly person who requires some type of supervisory care. In some cases, the client pays for the service, either directly or through a trust account. In other cases, the services are paid for by the child or relative of the client to whom periodic reports are made. Fees could be determined either on a set fee basis or on a per diem basis. The level of fees would be based on the number of different services required of the CPA.

It is estimated that, typically, individual fees would correspond to fees now charged by practitioners for monthly write-up work and could be on a retainer, set amount per month, or based solely on hours expended. The average fees are thought to range from $250 per month to over $1,000 per month, depending on the level of work.

Marketplace Permission. The CPA is viewed as independent, objective, honest, and reliable. This service is based on the application of CPAs' traditional measurement-and-reporting skills. CPAs could be seen as preferred providers of the service.

However, CPAs are generally considered numbers people. There are some permission barriers for CPAs to overcome in a high-touch service.

Market Size and Growth Potential. Elderly persons are frequently warehoused in retirement homes or nursing facilities or become captives of unscrupulous parties on whom they depend for services. Many elderly people are mentally alert but physically dependent on others for such things as transportation, grocery shopping, and check writing. In many cases, provision of home care might be cheaper and more effective than placing them in institutional facilities.

There is likely to be a tremendous market for a reasonably priced, independent, and objective service to provide the care described here. Physically distant family members can be assured, for a reasonable fee, that their loved ones are being properly cared for. Eventually, the government might even look to such services as being cheaper and more effective than the present method of providing such care. The cost of providing physical facilities and infrastructure to house this segment of the population is enormous when compared with the cost of providing services to a large segment of the elderly in their own homes.

Computing the actual size of the market depends on assumptions regarding the percentage of the population that will avail itself of the service and the fees charged. Statistics indicate that wealth in this country is concentrated in approximately 10 percent of the population. Therefore, the following table provides estimates of market size based on low and moderate levels of participation and moderate fee levels. The total potential service population (persons 75+) is assumed to be 16.6 million.

	Low	*Moderate*
Percent taking part	10 percent	15 percent
Number of customers (millions)	1.66	2.49
Average monthly fee	$100	$250
Average annual fee	$1,200	$3,000
Estimated annual market ($ billions)	$1.992	$7.470

Fees might be determined on a retainer basis or on hours spent on the engagement. Hourly fees, of course, vary widely. A fee of $100 per month might included only the review of routine financial transactions for reasonableness and adherence to established criteria. A monthly fee of $250 per month might include limited testing of care givers' adherence to criteria as well.

The market might be much larger than the above estimates. Statistical evidence suggests that wealth is concentrated among a smaller percentage of this demographic group than in the general population. Monthly fees of $750 to $1,000 or more might be more representative of the potential market.

Competition. A variety of providers deliver some parts of this service today. They include welfare agencies, geriatric specialists, trust officers, and lawyers. However, none of them have demonstrated the ability and willingness to expand or dominate the market. It appears that this is an area without any established competition.

Market Access. The service has great potential for small firm practitioners. Typically the elderly person or the person arranging for the care has sufficient income to require professional assistance in tax return preparation, estate planning, or small business accounting. Thus, many of them will have already established relationships with CPA firms.

Many of the potential clients reside in smaller communities (their children having left for larger, urban areas) where even the smallest practitioner would have an opportunity to enter the market. In addition, CPAs generally render ongoing services to many organizations, such as physicians, hospitals, churches, and home health agencies, that can refer potential clients.

Why CPAs Should Provide This Service

Because of CPAs' reputation for independence and objectivity, they should be able to develop market acceptance for providing these assurance services. In fact, some CPAs are already providing some part of this service.

The CPA's independence and application of objectivity to problems is a tremendous asset in this service. Decisions and recommendations regarding the best course of action in a given situation can be made without being cold and impersonal, but also without becoming personally involved with the client.

Moreover, the public good would be served. The CPA would be at the hub of a wheel of providers, conducting ongoing, continuous, and objective review of the performance of each of the service providers. Those providers not meeting goals, objectives, and criteria for performance would be weeded out. Other providers would be constantly striving to improve the level of service delivery. The net result would be improved care.

Competency Considerations

Portions of the skills and knowledge required to deliver this service are already a part of the CPA's overall business knowledge and training — matters involving financial transactions, measurement, and reporting. The service will require the development of skills pertaining to understanding the needs, demands, and limitations on the elderly. Such skills can be developed from specialized college courses or CPE seminars. In particular, CPE training will be needed to help the CPA understand the changes in mental attitudes and physical capabilities of aging persons, when to expect such changes, and how to deal with those changes.

This service anticipates that the CPA will report on the performance of other professionals. However, the reporting would be based on criteria agreed upon at the outset between the customer and the provider. It probably would not involve measurement of matters that are so specialized as to require additional training or assistance.

Other Aspects of This Service

The deliverer of the service should not participate in any residual estate from the client. Although engagement letters detailing services to be provided and certain other matters may not be mandated, their use in these engagements should be strongly recommended.

Market Research

The AICPA engaged Hill & Knowlton and Yankelovich Partners, Inc. to conduct nationwide market research on the attractiveness of the ElderCare service and users' willingness to engage CPAs to provide them. A summary of the research suggests that the target user group views this service very positively — more than half said they were extremely or very likely to use this service for their parents. There was no consensus about how much they would pay for the service, but the median estimate was about $500 a month.

Practice Aids

Practitioners Publishing Company has developed practice aids that CPAs can use to deliver the risk assessment service. These aids appear in PPC's *Guide to Nontraditional Engagements*. Some of them can be downloaded from PPC's home page. The aids include:

- Procedures (work) program.
- Services questionnaire.
- Engagement letter.
- Community resources.
- Guidance on communicating with older persons.
- Reports.
- Practice aids on domestic workers, social security, Medicare/Medicaid, long-term care, planning for contingencies

CPE

The AICPA CPE staff has developed a self-study CPE course, ElderCare. The course focuses on:

- How the service fits into the concept of assurance services.
- Identification of the skills and resources needed to provide the service.
- Identification of client needs.
- Delivering the service.

Seven Other Opportunities

In addition to developing business plans for six new assurance services, the Committee identified seven other potential services. These services appear to be attractive and valuable assurance opportunities. Only the Committee's resource limitations precluded it from developing them more fully.

The seven opportunities are described in the form of templates. Each template lists:
- Type of service
- General description
- Who will use the information
- Value to the user
- Who will pay for the service
- Value to the payer
- Cost/benefit to the CPA
- Potential market
- Marketplace permission
- Market access
- Litigation risk
- Need for special competencies
- Application to small firms

The opportunities are:
- Policy compliance
- Outsourced internal auditing
- Trading partner accountability
- Mergers and acquisitions
- ISO 9000
- AIMR compliance
- World-Wide Web assertions

Produced by the AICPA Special Committee on Assurance Services

Service Opportunity Template AIMR Compliance

Type of service	Assurance on investment managers' conformity with Association for Investment Management and Research (AIMR) Performance Presentation Standards.
General description	The CPA tests and reports on whether the summary of investment managers' performance is presented in conformity with the performance presentation standards of the AIMR. These standards deal with how investment managers measure the returns they disclose to fund sponsors and the public. They deal with such things as determining how the entity to be measured is determined and how returns should be calculated.
Who will use the information	Fund sponsors who choose investment managers and the public, which may select investment funds based on performance.
Value to the user	Users who choose among competing investment managers need some basis for selection. Most look to past performance. However, in the absence of standards investment managers have tremendous freedom to present their historical performance (for example, presenting the results of some funds, but not others or choosing time periods that don't include periods of poor performance). Use of the AIMR standards provides consistent information to users to compare managers and make informed decisions. Having the presentation audited by a CPA ensures that performance purported to conform to AIMR standards really does.
Who will pay for the service	The investment managers reporting their results.
Value to the payer	The CPA's assurance on the measures' conformity with AIMR standards provides confidence in the quality of the data reported. Performance measured in conformity with standards is likely to be lower than that measured using a method chosen by the person to be judged. Thus, someone who claims to use standards, but doesn't fully conform to them might gain competitive advantage against someone who faithfully follows them. The CPA's assurance on the measures is a signal to users that cannot be matched by managers who purport to use the standards but do not engage a CPA to attest to it.

Cost/benefit to the CPA	Expansion of services to new uses and new users.
Potential market	There are thousands of investment managers who report results.
Marketplace permission	Excellent. This service exists, but is not limited to CPAs by regulation. Nonetheless, data suggest that CPA firms provide the majority of this work. CPAs have taken command of the market despite the fact that they must adhere to the AICPA attestation standards and competing providers of the service, such as Certified Financial Analysts, do not.
Market access	Through existing clients. However, many firms provide this service but are not engaged for traditional services on those clients.
Litigation risk	Would not appear to be high, since data tends to be more objectively determined than for typical financial statement audits.
Need for special competencies	Knowledge of AIMR standards.
Application to small firms	Equally applicable to small CPA firms, since the service does not require sophisticated industry expertise or technology skills and is not limited to large entities.

Service Opportunity Template
Policy Compliance

Type of service	Compliance with company policies.
General description	The CPA provides assurance with respect to specific company policies, such as codes of conduct, human resource policies, treasury functions, or operating procedures. The policies might be based on internal control concerns, laws, or regulations. Or, they might be based on the company's philosophy or as a preventative approach to potential risks. For example, the CPA might provide assurance about the company's compliance with its policies regarding: • treatment of women or minorities • conflicts of interest in the treasury function • animal testing in R&D • records retention • customer service • environmental matters • ERISA requirements.
Who will use the information	Management and the board of directors.
Value to the user	The service provides independent assurance that the policies the user establishes are carried out. It also might provide some protection in future disputes (for example, discrimination suits) showing that it took good-faith action to follow up compliance with its stated policies.
Who will pay for the service	The entity.
Value to the payer	Using the company's independent CPA, who has familiarity with the company, its operation, philosophy and goals, provides economies over bringing in outside specialists (such as consultants or law firms). It also might provide some advantage over internal auditors who might be subject to some of the policies in question.

Cost/benefit to the CPA	New markets. Better understanding of the client and the risks it faces.
Potential market	All companies face issues that they believe are important enough to justify the creation of policies.
Marketplace permission	Varies. As a trusted business advisor, the CPA may be well positioned to report on matters related to finance or production. Permission lessens as the subject matter is farther away. However, trust and the ability to independently test assertions and report on them qualify CPAs for much of this work.
Market access	Through existing clients, although some firms could create niches for specific services.
Litigation risk	Unknown and could vary by subject matter.
Need for special competencies	Some services might require knowledge of specific subjects (science or specific laws, for example).
Application to small firms	Small companies generally lack formal monitoring functions. Yet they face some of the same risks as larger entities. Small firms are often trusted advisors to these companies who see them as able to provide assistance in many areas.

Service Opportunity Template
Outsourced Internal Auditing

Type of service	Providing internal auditing services for clients.
General description	The CPA provides internal audit services to either supplement or supplant internal audit departments. Services might relate to financial data or nonfinancial data, such as quality control, customer satisfaction, or productivity. The service is intended for entities that, because of their size or the nature of their operations, do not maintain their own internal audit departments. CPAs could also be used to supplement or assist existing internal audit departments, providing specialized capabilities or expertise.
Who will use the information	Boards of directors and management. The service might also meet the needs of customers who need assurance regarding quality control (such as monitoring under ISO 9000).
Value to the user	Managements and boards need to monitor the adequacy and effectiveness of internal control, soundness of operating and nonfinancial reporting systems, compliance with laws or regulations, the efficiency of operations and performance, and achievement of goals. Related services might include reviewing and critiquing the work of internal audit departments, providing strategic planning for them, and working with internal audit departments to design audits or approaches. Managements and boards monitor systems and outcomes to help ensure that the entity achieves its objectives. Internal auditing is a common method to effect monitoring. Management or the board can specify areas of particular importance for regular, periodic, or one-time evaluation. By understanding areas in which the organization is not performing as desired or expected, the entity can take needed action on a timely basis.
Who will pay for the service	The entity.
Value to the payer	Many smaller entities are reluctant to incur the fixed costs necessary to create and supervise internal audit departments. They might not need full-time departments or might need a wide range of skills on a sporadic basis. CPA firms can provide the expertise and flexibility to provide staff support on an as-needed basis.

	This service facilitates the trend in many organizations to outsource functions that do not represent their core competencies.
Cost/benefit to the CPA	This service line provides a new source of revenues. Work can often be scheduled so that it doesn't conflict with traditionally busy times. Firms that provide this service report realizations as high as for independent audits. The CPA needs to be careful when providing this service for audit clients or other clients for which independence is required because some procedures commonly identified with internal auditors can impair independence. The AICPA issued an ethics interpretation on independence in internal audit engagements. It requires that, for the CPA to maintain independence, that management understand its responsibility for establishing and directing the internal audit function and decides the scope of the engagement. The CPA reports the results of the procedures but cannot perform an on-going monitoring function. The client must decide on the recommendations to be followed.
Potential market	The primary market is small-to-mid sized companies that have dispersed or independent operating units but are not large enough to justify creation of a full-time internal audit staff. However even larger companies can use this service. The Institute of Internal Auditors has reported that 50 of the Fortune 1000 companies outsource internal auditing.
Marketplace permission	Excellent. Many firms already provide this service. It appears that CPA firms have inherent credibility — especially with existing clients. A profession-wide initiative could create additional demand (particularly from smaller entities). However, the profession will likely face organized resistance from the internal auditors, who may respond to a perceived threat.
Market access	Through existing audit relationships. Some firms might also develop niches specifically for this work (particularly for non-clients when the work cannot be structured to maintain audit independence).
Litigation risk	Should not be high. This work will be done primarily for internal users. However, risk could increase when fraud is involved. Risks might be mitigated through the use of agreed-upon procedures. Engagement letters or thorough engagement understandings should help reduce the risk of possible misunderstanding about the scope

	of the engagement and responsibility of the CPA.
Need for special competencies	The CPA can generally rely on skills already used in independent audits. Activities are very similar to independent auditing and use many of the same competencies. The CPA might need additional industry expertise in some cases.
Application to small firms	Small firms are likely to have clients that are too small to justify full-time internal audit staffs. The services could be an outgrowth of controllership services when clients get large enough to hire professional management. Small firms can also provide this service to SEC clients whose continuing auditors fear jeopardizing their independence under SEC rules.

Service Opportunity Template
Trading Partner Accountability

Type of service	Assurance on trading partner accountability.
General description	The CPA provides assurance that the client's trading partners have appropriately fulfilled their responsibilities. For example, a client might collect royalties or rents based on sales made by another entity. Or it may contract with suppliers that promise to charge their lowest prices (for example, advertising) or use specific billing practices (for example, law firms).
Who will use the information	Trading partners who have been promised certain conditions or performance and demand accountability.
Value to the user	The user gets assurance that its trading partners have executed their part of the agreement as promised.
Who will pay for the service	Either trading partner — the one that is owed the accountability or the one that owes it — might pay for this service.
Value to the payer	When the trading partner owed the accountability pays for the service it receives assurance and can direct the actions of the CPA, specifying the scope of procedures, timing of the engagement, etc. When the other partner pays for the service it minimizes disruption to its operations and lessens access to confidential information.
Cost/benefit to the CPA	Expansion of common services to new uses and new users.
Potential market	This service exits already. It is generally performed by the CPA for the supplier of the information. However, in some cases (for example, royalty agreements), the receiver exercises the right to audit the information independently. Many companies, however, rely on others' promises but get no explicit assurance that they have performed as promised.
Marketplace permission	Good. The CPA's traditional service translates well here. No significant entrenched competition.
Market access	Through existing clients, some firms have created niches for specific services.
Litigation risk	Does not appear to be high. However, CPAs might have to be wary of potential conflicts of interest when they serve both trad-

	ing partners.
Need for special competencies	None.
Application to small firms	Equally applicable to small companies and the small CPA firms that service them.

Service Opportunity Template
Mergers and Acquisitions

Type of service	Mergers and acquisitions assurance.
General description	The CPA provides assurance for the purchaser/acquirer in mergers and acquisitions (sometimes called "due diligence" work). The CPA can provide insights into business risks, the appropriateness of accounting methods, amounts reported, values, adequacy of systems and controls, and other information. The engagement might be similar to agreed-upon procedures, when the client specifies the CPA's procedures. Or, the engagement might be less structured, when there is a more general understanding about the types of procedures to be applied and the CPA communicates findings orally. Examples of mergers and acquisitions services include: • Business risk analysis of target entities • Assessing the target entity's systems and controls • Gathering evidence regarding recorded values affecting the acquisition price • Assistance in structuring the transaction.
Who will use the information	Acquirers in business combinations. The results might also be used by capital suppliers financing the activities.
Value to the user	The user gains confidence that it understands what it is acquiring. The service differs from a traditional audit in: (1) the flexibility of procedures to be applied — the CPA applies procedures to only those items of specific concern and need not accumulate enough evidence to support an audit opinion, (2) materiality judgments — often amounts not material for general purpose financial reporting are significant when they affect the actual purchase price, and (3) reporting — the CPA can provide analytical commentary about important factors that would not generally be found in the financial statements or standard auditor's report.
Who will pay for the service	The acquirer.
Value to the payer	The engagement findings should reduce the risk inherent in acquiring a business based on the seller's claims. The additional as-

	surance might also reduce the cost of capital. The findings might directly or indirectly reduce the acquisition cost.
Cost/benefit to the CPA	Because the service provides tangible benefits to the user, it often commands higher-than-average realizations. The service can provide an early opportunity to begin accumulating data for auditing the acquisition as part of a recurring GAAS audit. These services can lead to additional consulting services to improve operations, implement or integrate, systems, etc.
Potential market	Mergers and acquisitions activity is robust in the U.S., involving companies of all sizes.
Marketplace permission	Excellent regarding carrying out procedures and reporting on financial statement components. Lower as the function focuses more on valuation and strategic issues. But the profession has a good reputation here as well — particularly regarding small clients. Surveys show that CPAs are generally their clients' most trusted advisors.
Market access	Generally through existing client relationships. Engagements are also generated through contacts with other professionals such as bankers and lawyers.
Litigation risk	Services in connection with purchases and sales generally increase risk. These can be mitigated through engagement letters, but not eliminated.
Need for special competencies	Some services might require specialized industry knowledge and understanding of valuation and strategic issues.
Application to small firms	Small clients — serviced by small CPA firms — are active in mergers and acquisitions. They typically look to CPAs as principal advisors in most types of business activities — particularly unfamiliar ones. Although the amount at risk is lower than for large companies, it is still significant in proportion to company size and merits the involvement of an independent CPA. In addition, there is generally a dearth of publicly available information on small company acquirees, increasing the importance of the data generated internally by those companies.

Service Opportunity Template
ISO 9000

Type of service	ISO 9000 certification.
General description	Certifying companies' compliance with ISO 9000 (and similar series) standards. ISO standards are intended to ensure a level of quality control that implies the company's products are high quality. Services might deal with quality systems in design and development, production, installation and servicing (ISO 9001); production and installation (9002); or final installation and test (9003). ISO 14000 is expected to be issued in the near future to deal with environmental matters.
Who will use the information	Customers of the entity require assurance that the entity's products meet quality standards. This certification is necessary to do business in certain locations, industries, or special situations.
Value to the user	Certification provides confidence in the client's products. Users can, in turn, provide confidence about their own products, which incorporate the clients' products, to their own customers.
Who will pay for the service	Producers.
Value to the payer	Producers' products gain credibility and marketplace acceptance.
Cost/benefit to the CPA	A new market opportunity. Becoming an ISO 9000 registrar entails training, registration, and other costs that can be significant.
Potential market	Most companies in Europe and many large companies in the US require their suppliers to be ISO certified. The recognition of ISO certification is growing as is the range of areas covered by the ISO standards.
Marketplace permission	This service is similar to some traditional CPA services. However other providers have specialized in this area — so CPAs don't have a significant natural advantage.
Market access	Initially through existing clients. However, the cost of market access might restrict the supply of providers to allow some firms to market this service as a specialty.
Litigation risk	Unknown.
Need for special competencies	Knowledge of ISO standards.

Application to small firms	Many of the existing ISO registrars are relatively small entities that specialize in this work. Size does not appear to be a major determinant for success in this market.

Service Opportunity Template
WWW Home Pages

Type of service	Assurance on information in World Wide Web home pages.
General description	CPAs report on the reliability or usefulness of information contained in web home pages. The CPA report resides on-line along with the information and could be accessed when the information in the home page is accessed. The level of assurance provided is not addressed here. It could, for example, represent standard attestation-type assurance, vary based on the amount paid, or be customized, incorporating feedback loops from users.
Who will use the information	Persons who surf the web in search of decision-making information.
Value to the user	Home page users rely on the information for making decisions, but have no ability to judge its reliability or suitability. If confidence about the usability of the information could be obtained for a modest cost (or free), the value of the information would increase substantially.
Who will pay for the service	Users of home pages pay the CPA directly through credit card charges or e-money. Alternatively, sponsors of the home page could pay for the assurance and provide it free to users.
Value to the payer	Under the primary scenario, the user actually pays for the assurance. So, the value is the same as the value to the user. Under an alternate scenario, the sponsor of the home page pays for the assurance. In that case, the value arises from increased use of its home page, reliance on its data, and greater confidence in it as a provider of information or other services. In theory, the sponsor could charge for this information, and the increased confidence in its information could support a higher price.
Cost/benefit to the CPA	***Benefits*** 1. Access to a new market. 2. A change in the contracting methodology. For example, delivering the service directly to the user could allow the CPA to reduce potential liability by requiring the user to acknowledge specific limitations on (a) the use of the information and (b) the accountant's responsibility for accuracy. 3. Reduced client resistance. The sponsor's concern about the

	price or level of work required is substantially reduced if the CPA does not bill the sponsor. Under this scenario, individual users would each pay a very marginal amount for each bit of assurance. The payment is relatively painless for each, but could be substantial in total. 4. Ability to provide incremental, discriminatory pricing models. For example, the accountant might provide different levels of assurance on different bits of information on a single home page. Users could decide which information they wanted assured and pay only for what they want. Those that want more assurance could pay for more; those who don't, pay less. *Costs* 1. Creation of some differentiating method to avoid free riders. If it is apparent that the CPA has provided an assurance service and there is only one level of assurance available, anyone who knows the CPA is involved does not need to pay for the assurance to get it. (Similar to an audit of an SEC client, or an examination of internal control under FDICIA; there is effectively only one level of assurance so it's not necessary to actually acquire the report to know what the message is.) 2. Lack of control. Because of the ease of information transfer across the net, the accountant might not be able to control who gets access to the assurance. For example, information might traded among members of chat groups or downloaded and broadcast.
Potential market	The ultimate market can be estimated by considering: • The number of home pages • The percentage of those that represent businesses that provide information that would be assured • The number of hits per day • How much each user would be willing to pay for assurance. Although no reliable data exist to estimate the market with any precision, it appears to be a market in 9 figures (that is, hundreds of millions).
Marketplace permission	Should be good. The basic service is akin to auditing. The factors that the market will judge as important — objectivity, independence, ability to test and report — are the CPA's basic strengths.

Market access	Generally through existing client relationships. However, some companies that do not need audits or similar accounting services might engage the CPA to provide this service.
Litigation risk	Under current law, the litigation risk from information disseminated over a public medium, such as the Internet, appears to be no greater than information otherwise distributed. (See Assurance Service Liability: Computer-Disseminated Information.)
Need for special competencies	The profession has to achieve the ability to provide on-line assurance. The assurance could be one-time, but is more valuable if continuous. Also, the assured information could be of various types, requiring a range of competencies to provide assurance on it.
Application to small firms	Small clients might find this a particularly attractive service. Those without a national presence might find this service a way to achieve credibility. In addition, the cost structure (wherein the CPA charges users rather than the preparer) could overcome resistance due to price.

Hundreds of Additional Possibilities

To get an indication of the breadth of assurance services already offered in practice, the Committee undertook a survey. Large and medium CPA firms were asked to list the assurance services they offer. The firms were given a working definition of assurance services. But they were asked, when in doubt as to whether a specific service should be reported, to err on the side of inclusiveness, rather than screen out services that didn't fit a technical description of the services.

Four Big 6 firms and 17 Group B firms (that is, large firms, but smaller than the Big 6) responded. They enumerated 283 services, excluding services mentioned by the same firm more than once.

Duplicates received from different firms were eliminated. However, when it was unclear whether two services were identical, both were included. The summary indicates when three or more firms described the same service.

The results group the responses by common type. The summary divides the data into two general categories: new services to existing clients and existing services to new clients. Due to space limitations, some of the information is abbreviated or truncated, but it all should be understandable. The lack of data in specific columns indicates that the respondent did not provide that information.

The sorting of services is highly judgmental. Readers might perceive some apparent inconsistencies. However the goal was not precision, but rather, providing a starting point for thinking about potential services. In addition, some of the services are described in imprecise terms. For example, some were described as consulting services. These were included because (1) they demonstrate an information need and (2) many firms have not adopted the concept of assurance services and, therefore, categorize most services that don't fall under the attestation standards as consulting services.

Produced by the AICPA Special Committee on Assurance Services

Survey Results

Description	*Deliverable*	*Recur-ring?*
Improving Operations/Profitability		
Traditional Types of Customers		
Strategic self-assessment tool	Scorecard for attaining strategic objectives	Yes
Real estate site visit — review of assets and controls	Agreed-Upon Procedures (AUP) report — tailored program	Yes
Third-party reimbursement maximization	Revised cost reports	Yes
Analysis of management practices to correlate with success	Graphs and explanations to improve practices	Yes
Identification of critical items to monitor	List of controls and internal tests for accuracy	Yes
Profit enhancement — financial institution	Report identifying alternatives	Yes
Productivity improvement — symptoms to solutions	Comments with recommendations	Yes
Accounts receivable review and cash enhancement	Training and procedures	Yes
Cost analysis, profitability improvement, effectiveness reviews	Recommendations	Yes
Evaluation of aspects of entity's business	AUP or consulting report	No
Evaluate appropriateness of information provided to management	Recommendations	No
Business process improvement	List of improvement projects	Unknown
New Types of Customers		
Procedures on marketing data/performance results	Report of procedures and findings	Yes
Mystery shopping — company and regulatory concerns	Report on results based on criteria	Yes
Rental property operation reviews	AUP report	Yes
Customer satisfaction surveys (quality management)	Reports/validations	Yes
Benchmarking		
Traditional Types of Customers		
Comparison of entity statistics to industry	Graphs of key statistics	Yes
Operations scorecard	Benchmarking analysis	Yes
Adequacy of billing systems and comparison with competitors' rates	Letter on differences	Yes
Internal audit quality assurance (best practices)	Recommendations	No
Benchmarking/best practices	Comparison and performance measures	No

Description	Deliverable	Recurring?
Balanced scorecard: innovation, financial, internal, and customer measures	Scorecard	No
Shareholder value enhancement study	Report — benchmarking/alternative values	No
Management/board salary benchmarking	Report	No
Best practices study of accounts receivable, order entry, and rebate systems	Observations and recommendations	No
Evaluation of investment management policies vs. group of 30	Report on findings and recommendations	Unknown
Test whether advertising rates to be paid less than or equal to those charged to others	Attestation report	Unknown
Risk		
Traditional Types of Customers		
Risk management — derivatives	Policies and procedures	Yes
Assessment of ethics-related risks and vulnerabilities	Assessment, measurement and recommendations	Yes
Disaster recovery plan	Recommendations and site testing	No
Risk management review of treasury department	Findings and recommendations	No
Evaluate bank's policies — credit risk and loan losses	Report and presentations	No
Risk management — cash	Policies and procedures	No
New Types of Customers		
AUP — self insured risk for underground tanks	Report in regulatory format	Yes
Fraud and illegal acts risk assessment	Findings report — risk profile	Yes
Fraud and illegal acts prevention and deterrence	System evaluation and recommendations	Yes
Fraud determination for insurance support, litigation	Report	No
Safety		
New Types of Customers		
Verification of collateral	Report of procedures and findings	Yes
Loan collateral audits	Report on whether collateral is presented fairly	Yes
Loan survey — review of borrower's records	AUP report — tailored program	Yes
Due diligence — collateral/performance of CMOs/other securities	AUP report	Yes
Medical claims review	AUP report	Yes
Review of insurance company claims liabilities by actuaries	Report on adequacy and degree of conservatism	Yes

Description	*Deliverable*	*Recurring?*
Due diligence assistance (forensic)	Report of findings	No
Security consulting and outsourcing	System evaluation and recommendations	No
Stewardship/Accountability		
New Types of Customers		
Examination — adequacy of escrow — municipal bond defeasance	Report with schedule	Yes
Adequacy of capital for self insured companies	Report of noncompliance to state	Yes
Verify tons of trash to determine excise taxes accuracy	AUP report	Yes
Report on sales to compute contingent rents	Schedule	Yes
Compliance with royalty agreements (entertainment)	AUP-type report on exceptions	Yes
Arbitrage rebate liability for tax exempt bonds	AUP with calculation of liability	Yes
Labor union — compare hours worked to submitted (basis for dues)	AUP report with identification of differences	Yes
Projections of debt coverage — mortgage revenue bonds	AUP — compare projected to actual	Yes
Royalty license and profit participation	Attestation report	Yes
Bond administration and payment verification	AUP report	Yes
Bond refunding escrow verification	Report — cash flow and yield accuracy	No
Architectural firm overhead rates used for client billing	Unknown	Unknown
Internal Control		
Traditional Types of Customers		
Review of loan origination/administrative-regulatory requirements and ability to repay	AUP report	Yes
Internal control examination (SSAE 2)	Opinion on effectiveness	Yes
Reports on service centers (SAS 70, type 1)	Report with description	Yes
FDICIA — internal control compliance with laws	Attestation report	Yes
Manage risks of accumulating, distributing, and storing information	Assessment, SAS 70 report	Yes
Report on internal control (individual process or company)	Assurance on whether controls are in place and operating	Yes
Preimplementation review of warehouse system	Documentation of controls	Yes
AUP on accounts receivable securitization program	AUP report	Yes
Periodic AUP on procedures over servicing secured receivables	AUP report	Yes
Review of compliance with investment policy	Procedures and findings letter	Yes

Description	*Deliverable*	*Recurring?*
Compliance with corporate records retention policies	Attest report	Yes
Controls over, and risk related to, investments (government)	AUP report	No
Policy and procedure preparation	Consulting assistance	No
Evaluation of treasury management policies and controls	Report on findings and recommendations	No
Review of contract administration function	Observations and recommendations	No
Documentation of internal control	Flow charts and writeups	No
Compliance with trading policies and procedures	Report on results of review	No
Monitor telephone company operators for unauthorized switching of long-distance service	Unknown	Unknown
Adequacy of controls or policies for derivatives	Unknown	Unknown
AUP related to law firm's billing practices	Unknown	Unknown
Self assessment of control risks	Methodology and tools	No
New Types of Customers		
Compliance with specified security procedures and controls	Report on findings and recommendations	Yes
Writing procedures manual for lender's inventory audit (collateral)	Unknown	Unknown
Information Technology Management/Security		
Traditional Types of Customers		
Information systems security reviews	Assessment, risk identification, and action plans	Yes
Intellectual property rights, noncompete agreement regarding software (litigation)	Report on findings	No
Review computer disks for unauthorized software	Report on findings	No
Review security over personal credit data	AUP report with recommendations	No
Review information processing outsourcing invoices and service level	AUP report	No
Outsourced internal audit — review cost of moving outsourced information processing in house	Examination of projections	No
EDP risk management services: review controls, test models	Commentary and conclusions	No
Audit of EDP controls and environment	Report of findings	Unknown
Internal Auditing		
Traditional Types of Customers		
Internal auditing (8 firms)	Report of procedures and findings	Yes
Monitoring of internal auditing (bank)	Suggestions for improvement	Yes

Description	*Deliverable*	*Recurring?*
Internal audit computer support evaluation	Recommendations or assistance	Yes
Assessment of internal auditing program	Report on efficiency and effectiveness of internal auditing	No
Internal audit reengineering	Recommendations	No
Preparation of internal audit policy and programs	Report	No
Internal audit strategic review	Report of findings and recommendations	No
Quality assurance review of internal audit dept.	Report — compliance with standards, best practices	No
New Types of Customers		
Internal auditing for ISO 9000	Unknown	Unknown
Regulatory Compliance		
Traditional Types of Customers		
Regulatory compliance (3 firms)	AUP report	Yes
Compliance with laws — Indian casinos	AUP-type report	Yes
AUP on HMO for compliance with government regulation	AUP report	Yes
Regulatory services — compliance and risk assessment	Report	Yes
Compliance with HUD loan servicing agreements	Compliance report	Yes
Assist in meeting OCC audit requirements — bank trust departments	AUP report	Yes
Medicare/Medicaid operating audits — regulatory compliance and controls	Report of procedures and findings	No
Health and welfare agency compliance with grants	Unknown	No
Compliance consulting regarding laws and regulations	Report	No
Compliance with DOL and ERISA rules	Report on compliance and potential costs	No
Compliance with EPA rules on oxygenation of gasoline	Attestation report	Unknown
New Types of Customers		
Help agency perform compliance procedures	Personal assistance	Yes
Compliance of companies who self-insure	AUP report	Yes
Vendor compliance under government contracts	Report	No
Investigation of market conduct (regulatory)	Report describing findings	No

Description	*Deliverable*	*Recurring?*
Contractual Compliance		
Traditional Types of Customers		
Loan covenant compliance	AUP report	Yes
Contractual compliance assurance	Report	Yes
Assess ATM compliance with security procedures and controls	Report on findings and recommendations	Yes
Compliance with joint venture agreement	Report	Yes
Compliance with investment advisory contract	SSAE 3 report	Yes
Contract compliance	Report of procedures and findings	No
AUP on compliance with bank's requirements	AUP report	No
Audit compliance with master service agreements	Report on compliance with agreement	No
New Types of Customers		
AUP on rental car agencies — compliance with lease	AUP report	Yes
Audit compliance with joint venture operating agreement	Report on compliance with agreement	Yes
Contractual compliance attestation	Attestation report	No
Product Quality		
Traditional Types of Customers		
AIMR attestation services	Report	Yes
Attestation on commodity pool track records	Report	Yes
Investment advisory performance	Attestation report	Yes
New Types of Customers		
Assurance on marketing information related to investment returns	Report of procedures and findings	Yes
ISO 9000 certification	Certificate	Yes
Review commercial accounting software for regulatory compliance	Report with conclusion for vendor literature	Yes
Compliance with industry standards re: additives test labs	Attest report on compliance	Yes
Examination of software description	Attestation report	Yes
Examination of hardware benchmark test results	Attestation report	Yes
Software functionality (performance) review	SSAE report	No
Winning contest cards were included in production run	Attestation report	Unknown
Clinical results of in-vitro fertilization	Report on presentation	Unknown

Description	*Deliverable*	*Recurring?*
Percentage of recycled paper included in paper products	Report	Unknown
Environmental Matters		
Traditional Types of Customers		
Environmental reports for regulators	AUP report	Yes
Attestation to information in environmental annual report	Report for general distribution	Yes
New Types of Customers		
Audit of environmental compliance and management system	Attestation report	Yes
Annual environmental report	Attestation report	Yes
Examination of environmental release estimates	Attestation opinion	Yes
Examination of Transactions and Data		
Traditional Types of Customers		
Bank directors examination	Report	Yes
AUP on financial statement component	AUP report	Yes
AUP on financial data (SAS 75)	AUP report	Yes
Financial and occupancy records	AUP report	Yes
Verification of contributions under incentive plan	AUP report	Yes
Trust department director exam	AUP report	Yes
Audit of milestones in re long-term incentive plan	Audit report	Yes
Pricing investigation of supplier re: best price	Report of findings	Yes
Verification of construction costs for incentive grant	Report	Yes
Verify contract costs for loan draws	Report of procedures and findings	No
Cost verification — HUD low income housing credits	HUD-specified reports	No
Identification of overcharges in accounts payable, tax assessments, etc.	Unknown	Unknown
Reviews of cost allocations for investment companies	Report on methods or allocations	Unknown
Prospective Financial Information		
Traditional Types of Customers		
Forecasts and projections (4 firms)	Report	No
Financial feasibility studies (healthcare)	Report	No
Prison feasibility/need study	Economic analysis	No
Budget and projections	Compiled information	No

Description	*Deliverable*	*Recurring?*
Accounting Expertise		
Traditional Types of Customers		
Application of accounting principles	Report on proper GAAP	No
FASB impact assessment	Description of effect, assistance in recording	No
Review of potential problems re: pooling	Oral report	No
Financial reporting segment repositioning	Report and recommendations	No
Evaluation of transfer pricing	Report to management	No
Evaluation of adequacy of writedown — elimination of line of business	Report on assumptions used by experts	No
Assistance in initial conversion from statutory accounting to GAAP	Report on conversion, oral evaluation	No
Transaction Structuring		
Traditional Types of Customers		
Assistance in structuring complex transactions	Unknown	Yes
Corporate restructuring	Unknown	No
Creation of transaction structure to meet guidelines	Model	No
Assist in workout plan for customer of client	Plan on workout; advice to client	No
Outsourcing		
Traditional Types of Customers		
Employee benefit plan administration and record keeping	Quarterly summaries	Yes
Outsourced accounting function	Staffed accounting department	Yes
Direct Oversight by the CPA		
New Types of Customers		
Election for board of directors	AUP report	Yes
Ballot for awards show	Report	Yes
Determine rates or contract amounts — healthcare alliances/ventures	Unknown	Yes
Verify vote tally (political); response to surveys (consumer)	Certification letter	Yes
Balloting for distinguished professor award	AUP with results	Yes
Report on tabulation of a union-organizing vote	Report	Unknown
Mergers and Acquisitions		
Traditional Types of Customers		
AUP on borrower or target financial information	AUP report and adjustments	Yes

Description	*Deliverable*	*Recurring?*
Due diligence for M&A (5 firms)	AUP report	No
Due diligence accounting systems/controls — M&A	Report of procedures and findings	No
AUP on buy/sell agreement	AUP report	No
Assistance in acquisitions	AUP report	No
AUP for acquirer of assets and liabilities (3 firms)	Oral report or outline of findings	No
M&A consulting	Consulting assistance	No
Due diligence — acquisition target	AUP report	No
Fairness opinions on takeover offers	Unknown	Unknown
New Types of Customers		
Acquisition due diligence	Long-form report — procedures/findings	No
Due diligence assistance	Report or presentation materials	No
Fairness opinions (M&A)	Opinion	No
Valuations		
Traditional Types of Customers		
Business valuations (4 firms)	Valuation report	Yes
Appraisal/valuation of client assets	Report on value	No
Share valuations	Special report	No
Tax Expertise		
Traditional Types of Customers		
Tax opinions	Opinion letter	Yes
Tax reduction/tax compliance studies	Report	No
Rehab tax credit analysis — support for tax return	AUP report with computation	No
Third-party tax opinions in offering documents	Formal opinion	No
Other Attestation		
Traditional Types of Customers		
Special procedures for bond underwriters	AUP report	Yes
Attest to overhead percentage under FAR or GAAP	Report to client stating overhead percentage	Yes
Report on method comparing AT&T/MCI bills	Examination report	Yes
Report on method comparing AT&T/MCI bills — on-line	On-line (Internet) examination report	Yes
Comfort letter on asset-backed securities	AUP report	No
Arithmetic accuracy of government obligation refunds	Examination or AUP report	No

Description	*Deliverable*	*Recur-ring?*
Whether another firm's audits accorded with US GAAS	Opinion	Unknown
Selection of applications for tickets to a sporting event	Report	Unknown
New Types of Customers		
Special procedures on colleges for NCAA	AUP report	Yes
Assurance on number of Internet site hits per day	Examination report	Yes
Examination of mandated operational study (regulatory)	Attestation opinion	No
Report on method used by real estate appraiser	Examination report	No
Newspaper circulation audits	Unknown	Unknown
Other Consulting		
New Types of Customers		
Valuation and damages	Unknown	Yes
Litigation support services	Compiled data; testimony	Yes
Assistance in communications with lender consortium	Consultation and advice	Yes
Bankruptcy assignments for debtors or creditors	Monthly operating reports, cash collateral analysis	No
Litigation support	Unknown	No
Organizational studies	Plan of action	No
Fraud investigations	Findings, confessions	No
Actuarial or Other Calculations		
Traditional Types of Customers		
Actuarial calculation of pension liabilities	Calculation	Yes
Actuarial review of insurance company loss reserves	Actuarial opinion	Yes
Recalculation in conjunction with bond issue	AUP report	No
Arbitrage calculations	Attestation report	No
New Types of Customers		
Industry surveys	Reports/validations	Yes
Other Nonrecurring Engagements		
Traditional Types of Customers		
AUP — general (5 firms)	AUP report	No
IPO advisory services	Advice, comfort letter	No
Assistance with reports to regulators	Consulting assistance	No
Loan reviews	Report	No

Description	*Deliverable*	*Recur-ring?*
Investment reviews	Report	No
Application to regulators: change in controls over redemptions	Application report	No
Due diligence for underwriter IPO for nonclient	AUP report	No
Service provider's ability to reimburse remediation expenditures	Solution for reimbursement	No
Scrutineers re: shareholders' meetings resolution	Unknown	Unknown
New Types of Customers		
Compilation of real estate appraisals	Report and schedules	No
Real estate demand studies	Report on demand drivers	No
Presentation of industry seminars for management	Presentation materials	No

Produced by the AICPA Special Committee on Assurance Services

Analysis of Interviews with Potential Assurance Customers

In keeping with the Committee's commitment to a customer focus, it interviewed information users in order to understand their information and assurance-service needs. This paper reports on the interview findings.

Executive Summary

The 44 interviewees represented a spectrum of decisionmakers. The interviews were intended to generate ideas rather than provide a statistical sample of opinion. Nevertheless, they demonstrated unmet needs for assurance. They also suggested that as potential assurance services depart from traditional audit services, CPAs might have difficulty obtaining marketplace permissions.

The findings suggest that the most promising assurance needs involve the following types of information.

Promising Customer Needs

Customer Need	Potential Customers
Better information about business risk	Board of directors Management
Information about product quality	Individuals
Performance measures	Senior management
Information quality reported to board	Board of directors Institutional investors
Quality of processes and controls	Board of directors Senior management Investors
Information about strategic plan execution	Board of directors Institutional investors
Information on government performance	Public

Introduction

The interviewees were customers, potential customers, and others knowledgeable about the profession. They represented a cross section of constituencies and potential constituencies, including investor and creditor representatives, CEOs, CFOs, other members of management, members of boards of directors and audit committees, regulators, and community activists. The decision-making positions of the 44 interview subjects are listed in the Appendix.

The interviews were open-ended and designed to search out the specific kinds of information customers need to make decisions. Questions covered the professional needs of the interviewees and information needed to make personal decisions.

The objective was to identify trends regarding information needs and translate those needs into potential service concepts.

The interviews indicated information needs that go beyond financial statements and current assurance products. For example, one audit committee chairman and former CEO said, "The audit committee's purview should be redefined as the corporate reputation committee." This suggests a need for information that identifies potential issues and problems, which extends beyond financial-statement risk to address other business risks and business processes. Customers wanted information that is not only reliable but also timely and relevant.

Many of the interviewees saw the auditing role narrowly. For example, two commented that "Accountants are numbers people" and "Auditors just issue audited statements, fundamentally saying the accounts balance."

Other comments suggested that the marketplace has not yet given CPAs permission to expand the assurance role. One commentator noted, "On a scale of one to ten, when ten is the highest, the value auditors bring would be one." Another said, "Most accountants tend to take a narrow view; they are not the first group I'd turn to to provide broader services beyond their traditional offering."

A number of interviews suggested that the marketplace perceives auditor skills to be limited and inadequate. According to one commentator, "Auditors don't know how to ask the right questions." Another held that , "Accountants don't provide guidance to clients; they just don't understand the business."

The interviews were analyzed judgmentally. Trends and common needs were identified and the strength of the information needs was evaluated. The objective was to begin to sort out and measure the intensity of the messages. The results are presented below. Signals by users that needs are relatively strong are indicated by checks. The Committee also attempted to assess the extent that the customer-needs messages were corroborated by other efforts — specifically, (1) the conclusions of the study of external factors, (2) research on the influence of information technology, and (3) an ad hoc accumulation of articles that touch upon information needs and assurance services that are currently or might be provided in the future. Corroborating information is rated on a one-to-five scale, where one indicates a little support and five indicates a high level of support.

Summary of Common Needs

	Users								Intensity of corroboration		
	Investors	Creditors	Senior mgmt	Other mgmt	Board	Community	Regulators	Individuals	Articles	Ext. factor	Info. tech.
Assessing/planning the future											
Management quality			√		√				4	4	3
Systems quality	√		√		√	√	√		2	4	5
Product quality			√	√	√	√	√	√	5	5	1
Risk information	√	√	√	√	√			√	4	4	3
Future information		√	√	√	√	√			1	1	2
Interpreting historical results											
Industry comparison	√	√	√	√		√			1	3	2
Comparison to strategic plan			√						2	3	1
Navigation information	√	√	√		√				1	2	5
Other data	√		√		√	√	√		2	1	4
Improved decision-making											
Reduce data-gathering cost		√	√						4	4	1
Improved timeliness			√						1	3	4
New scorecards		√		√			√	√	2	5	4
Reliable public sector data							√		1	2	3
Reduce cost of operations			√			√			3	3	1
Subcontract-or oversight							√		1	2	1

The information needs/service concepts in the above table are treated in more detail in the remaining portion of this paper. The position of the person making each comment is identified. The numbers shown in parentheses are cross-references to persons listed in the Appendix to this paper.

General Trends — Commercial Sector

The information needs of the 37 interviewees in the commercial sector can be grouped in three general areas: assessing/planning future success, understanding historical results, and improving the decision process.

Assessing/Planning Future Success

Quality of Management

Customers raised concerns about their ability to rely on management's competence and integrity. The need was more strongly expressed by internal users, such as members of management than external users, such as investors and creditors.

Investor comments

Institutional investor (3): Assessment of quality of management; a report card.

Board/audit committee comments

Chairman (1): Annual CEO and Board member review (of own effectiveness, conflicts, etc.).

Chairman (1): My key worry is buyers on the take. If I were auditing [my company]'s reputation I'd want to talk to a lot of suppliers about the integrity of our buyers.

Board member (38): Report to the entire board on governance issues. Having auditors in an intermediary role is an idea whose time has come.

Senior management comments

CEO (7): Has used outside assistance in the area of management compensation comparisons.

President (8): Would like a rating of his managers.

CFO (16): Compensation/staffing/employee services/401K educational programs.

CFO (36): Accounting firms should provide judgments/benchmarks on the competency of our staff: competencies, missing components, numbers, areas for improvement.

President (40): Organizational/HR needs assessment.

Other management comments

Corporate secretary (19): Accounting firms should play a wider intermediary role between management and the Board — act as the staff beyond just the audit committee.

Service concepts

Management report cards: quality/competency; multi-level; internal or external use

Providing and reporting against performance measures

Providing services directly to the Board of Directors (such as outsourcing internal audit services or providing assurance on the internal audit function)

Aligning incentive systems to goals.

Quality of the Company's Internal Systems

External customers expressed interest in how well an entity's internal controls operate as a measure of management's ability and the reliability of data. Internal customers wanted systems to integrate with business operations.

Investor comments

Institutional investor (3): Evaluations/assurance on a company's ongoing effectiveness in gathering strategic data.

Institutional investor (2): Management letters.

Institutional investor (3): Evaluations/assurance on a company's ongoing effectiveness of internal controls and systems.

Corporate finance (23): Need to understand tolerance factor on software that generates phased data. Accounting firms could own software companies like JD Edwards and provide more and better integrated data from the systems.

Creditor comments

Senior credit officer (5): Likes management letters a lot.

Senior credit officer (5): Accurate information on lending process is important to regulators and directors. Third party attestation would be useful.

Board/audit committee comments

Board member (24): Major internal control reviews (beyond audits) every 3 or 4 years.

Board member (38): Internal controls, not just fraud, are a major area of concern: adequacy of numbers, scorecard/grading system, quality (not just adequacy) of controls, professional judgments from auditors.

Board member (38): Biggest control area is MIS.

Senior management comments

CFO (16): Accounting support needs to parallel business functions. Don't just check later. We need employees to be informed, close, part of the process.

CEO (7): Internal reporting and processing systems that make it easier for sales force to use in costing projects and ordering supplies from inventory. Currently use system defensively designed to prevent theft/fraud.

CEO (28): Customized reporting on banking industry and issues pulling from myriad sources; Executive Information System; pull and integrate information from regulators, Central Bank, reporting; agencies and banks; one set of numbers; data-search, analysis, and presentation.

CEO (28): Regulatory software.

CEO (28): Integration of accounting systems and operations when banking and insurance sectors merge; valuations; marking to market; liability side of balance sheet most critical

CEO (28): For commercial banks, databased marketing systems: segmentation, mini-P/Ls around segments.

CFO (29): Assistance in developing P/Ls on every "right" attached to every project (entertainment programs): Each project has own unique contractual arrangements, highly complex structuring, need to track from funding phase through production, through distribution over life of product.

CFO (29): Accounting systems to gather, sort data around each project/subsidiary and track through products' life.

CFO (29): System for navigating the library of context/product.

CFO (29): Assistance on planning for future accounting system needs, as company continues rapid growth.

CFO (41): The control environment and how it relates to employees.

CFO (42): Technologies are coming so fast that management doesn't have time to track and learn them. We need to know what really adds value.

CFO (42): Good quality management letters on internal controls.

Chairman (43): We send our lenders extensive information. One lender periodically sends someone to review certain of our controls.

Chairman (43): Once loan agreements have been purchased, servicing them requires extensive data processing and monitoring.

CFO/CIO (44): The company's principal need for accurate and timely information is revenue and cost data for internal budget and financial reporting purposes; an off-the-shelf IS package was deemed to be too inflexible.

CFO/CIO (44): An EDI system might be implemented in the future, although there is no immediate need for one. Client orders are handled with 95% reliance on faxes and co-ordination with reps.

President (44): Reengineering systems and processes for growth.

Other management comments

CIO (39): Assurance that movement of goods and services around the globe is performed effectively and properly and that the internal controls are in place to avoid fraud.

Service concepts

Providing assurance on processes

Systems integration

Systems design for specialized purposes

Develop controls and rational applications for management of assets

Quality of Products

An indication of future success is the quality of the entity's product. External users indicated concern about whether the company's product can compete in the marketplace. Internal users were concerned with whether their suppliers' products were adequate and with providing assurance to their own customers about their own product.

Investor comments

Institutional investor (3): Need data/analysis on: product/service competitiveness and share-taking potential (including new product introduction success rates, warranty reserve trends, customer service function effectiveness).

Board/audit committee comments

Chairman (1): Worry about the quality of suppliers.

Senior management comments

President (8): Assurance regarding suppliers' adherence to standards is important.

Executive vice president (9): Information on private sector suppliers on projects would be useful.

CFO (30): Comparisons of product deals/pricing from manufacturers.

CFO (42): Do not have really good information on quality of vendors' products nor a good s ystem for tracking vendors.

CFO (42): Would subscribe to a D&B-type service covering vendor product quality: selection and tracking, monthly update.

Chairman (43): General and specific reports on the network of agencies.

Other management comments

Accounting manager (18): Beneficial if could assure customers that our sources of information compared favorably to competitors'. Assurance to customers on technical reliability of our services. Assurance on reliability and accuracy of our models. Assurance on accuracy of our software, hardware, communications links.

Senior credit officer (5): Accurate information on lending process is important to regulators and directors. Third party attestation would be useful.

CIO (39): Assurance regarding suppliers' adherence to standards is important. We are currently reducing our supplier base and must be sure to pick the right ones.

CIO (39): Certification of the software that is purchased: that it is of top quality and that it actually delivers what it promises to accomplish.

CIO (39): Certified installers of SAP that have proper training and have passed rigorous examination.

Service concepts

Assurance on the credibility of information-related products
Assurance on production systems
ISO 9000-type audits

Better Information About Risk

Customers of all types indicated a need for better information about risks the entity faces and how the entity manages them.

Investor comments

Institutional investor (2): Reliability of financial statements may be a particular issue when future confirmation of estimates made in current year are unusually significant.

Institutional investor (3): Environmental and legal risks are areas poorly reported by auditors today; more quantifications of risks facing company.

Institutional investor (3): Need early read when performance changes on important monitored factors.

Institutional investor (3): Early warning of significant changes; tailored reporting on 8K filings.

Institutional investor (3): Different countries' accounting practices create too many uncertainties for investing abroad. Translation and assurance could help.

Director of research (22): Sensitivity analyses of future performance using different assumptions; studies of environmental protection trends, their impacts on different sectors, how changes implemented by companies.

Creditor comments

Senior credit officer (6): Needs are very modest for a community bank: internal sources can adequately monitor/manage risk. It relies on industry standards and obtains input from entities such as the OCC examiners.

Credit officer (211): Key success factors, trends in sector, direct competitors to clients, sensitivity analysis of variables.

Credit officer (21): Early warning system, looking at key risk factors: inventory values/writedowns, cost of goods sold analysis, cash management, accounts receivable, monthly/quarterly changes, covenants, legal liabilities/contingent liabilities, credibility of expenses, software and other dependencies, distribution agreements, derivatives activities.

Senior credit officer (5): In monitoring a credit facility, more assured information on external market forces.

Credit officer (21): Key success factors, direct competitors to clients.

Board/audit committee comments

Chairman (1): Greatest concern is about factors protecting or improving the reputation of the business: potential impact of lawsuits on reputation, customer complaints, illegal acts, accountability for managing impact of decisions on reputation, treatment of suppliers, contractual arrangements, derivatives/hedges, patent infringement. The audit committee should become the corporate reputation committee; auditors should look at factors that affect the business' reputation.

Chairman (1): Worry about suppliers' ability to take returns; their financial and other capabilities determining their reliability and quality.

Chairman (1): Controls on derivatives.

Board member (24): Accountants' opinions to the board on how regulatory/rule changes will impact the client's industry.

Board member (24): Risk management assistance from CPAs, not in creating system but in reviewing systems in place.

Board member (24): Assisting in monitoring/controlling corporate reputations is interesting in concept, but CPA role only in areas clearly defined as financial.

Board member (25): Risk management and control measures: includes reputational risk, greater assurances to boards on the "unknown, unseen" elements of large IT systems; an objective look from outside.

Head of D&O insurance (37): An asset and liability management function. Helping boards to manage risk by: defining risks, establishing policies, determining what tests to run, developing and running tests.

Senior management comments

President (8): Uses outside consultants to review environmental matters around sites and provide a certified report.

CFO (16): New areas: legal, litigation, environment, derivatives.

CFO (16): Other areas: Estimation of losses/exposures, fraud control, legal issues, risk evaluation in entering new markets, credit risk on customers.

CEO (26): Supplier contracting/risk assessment.

CFO (29): Advice about accounting impacts of contract at outset.

CFO (30): Risk management controls a major area of need: workers compensation, health insurance, casualty, property valuations, environmental risks.

CFO (30): Contingency planning assistance: scenario building; volatility factors.

CFO (41): Risk assessment, including insurable issues (e.g., disaster recovery).

President (40): External assessment of risks: systems software and inputs, setting control priorities with directors, quantification of measurement and control.

Other management comments

Director of budgets (17): Managing exposure risks; balancing business requirements and treasuring/hedging activities

Corporate secretary (19): Need assistance in receiving better assurance over contingent liabilities.

Corporate secretary (19): Any new services around fraud would be helpful to our internal audit group.

Service concepts

Reputational risks assurance

Assurance on the process the entity uses to identify and manage risks

Environmental audits

Portfolio risk rating and risk concentration management
Real-time auditing in support of decisionmaking
Assurance on internal audit function
Assurance on contingent liabilities
Third-party assessment as part of early-warning system
Leverage firms' own risk-assessment techniques (sell system capability, not ratings)

Forecasts and Forecasting Systems

Some customers identified a need for additional future-oriented information for planning or assessing an entity's future prospects. External users wanted future-oriented data; internal users generally focused on systems designed to provide data for operations.

Investor comments

Director of research (22): Timely third-party analysis of future cash flows; particularly analysis of a company's ability to generate future cash internally and the extent of future borrowing/equity financing needs. Sensitivity analyses of future performance using different assumptions.

Research director (33): Want/demand to understand management's strategies.

Deputy executive officer, head of research (35): Find out what strategy is for accomplishing a turnaround.

Creditor comments

Credit officer (21): Assessment of achievability of client's goals looking at drivers and success factors; 18-month forward look.

Credit officer (21): Critique of management's plans in problem situations.

Credit officer (21): Become outsource to mid-market companies in providing reporting and projections.

Board/audit committee comments

Board member (24): Assurance of information inputs to strategic planning and product development.

Board member (25): Study of projections related to security offering prospectuses.

Senior management comments

CEO (7): Accurate inventory forecasting system.

CFO (16): We need a high degree of predictability and accuracy on needs and outcomes.

CFO (16): In the future we will need full integration of our business systems with our financial system. The challenge is individualized parameters for businesses while maintaining commonality of data.

CEO (26): Help in building and projecting various scenarios for future cash flows and funding needs.

CEO (26): Help in developing balance-sheet strategies.

CFO (36): Forecasting with a focus on cash and balance-sheet impacts.

CFO (36): Analysis of planning model and underlying assumptions; relationships of elements in model and criteria used.

President (40): Help in modeling the future — market segmentation, change in demand and segment performance, business exit strategy for owner.

President (40): Capital requirements and sources.

Other management comments

Director of budgets (17): Align the accounting treatment of information/metrics to aid decisionmaking and management judgments about the future business. Assure incremental decisions and decision-making process right for investors and long-term direction.

Director of budgets (17): Assistance on inputs to prospective decision-making (value is in process, not assured inputs): quarterly, annually, and long-term (5 year) decisions, goal-setting, tracking investment performance in product portfolio, strategic analysis of options for functions, products, markets, delivery systems (reducing risks, cutting costs, financial projections).

Corporate secretary (19): Investment community always looking for forecast data; if auditors could change their culture to provide it, it would be very helpful.

Service concepts

Goal setting

Outsourcing strategic planning

Assurance on process to facilitate forward-looking issues

Assurance on assumptions built into software/models

Understanding Historical Results

Comparison of the company to its industry

There is a thrust across customer groups for information about an entity's industry to provide perspective for entity information. The industry information might be financial or nonfinancial.

Investor comments

Institutional investor (2): Exception reports that indicate exceptions to common industry standards and practices would be helpful in some industries.

Institutional investor (2): Industry trends providing an ability to identify course changes.

Institutional investor (2): Consistent industry data, such as from an objective database, to identify trends, recent historical results and variances.

Institutional investor (3): Wants comfort that companies are solving real problems of customers relative to competitors.

Institutional investor (3): Benchmark would be useful if about year-to-year results not general practices, and if they dealt with normalized earnings.

Director of research (22): Equalize, for comparison purposes, the financial statements of different companies with investors in mind: industry-wide benchmarking made easier, accountants should have the knowledge to interpret practices and make statements more comparable through a standard translation.
(The section on navigating information indicated that some external users also wanted an indication of how the accounting policies selected compared to other companies, presumably competitors.)

Deputy executive officer, head of research (35): Benchmarking against top performers in industry.

Creditor comments

Senior credit officer (4): Provide creditors with access to a central database on companies (with financial and nonfinancial data and analyses).

Senior credit officer (5): Benchmarking, but currently use Robert Morris Associates to check clients against other companies in the industry. A large database.

Senior credit officer (5): Accurate information, easily accessed, on corporate customers' market shares and position.

Senior credit officer (6): Industry statistics and information and/or comparable company data are very relevant to the credit process, and are currently obtained from subscription-based research companies like Robert Morris Associates.

Credit officer (21): Provide industry/sector benchmarking service: compete with Robert Morris Associates, large or pooled accountancies ought to have competitive sample sizes by sector, would consider of high value coming from accounting professionals.

VP-commercial credit (32): Good and comparable data by industry sector at one source to streamline decision making: economic/industry trends and implications, benchmarking, e.g., average turnover, debt/equity ratios, cash flow, coverage and other statistics, average ratios, best practices in sector, key success factors and risk areas.

Board/audit committee comments

Board member (24): Benchmarking to best practices; executive level assistance.

Board member (38): Peer comparison would be helpful.

Senior management comments

CEO (7): Would like benchmarking for the industry and would be willing to contribute information to feed normative measures, if confidentiality maintained.

CEO (7): Desires information on: what competitors are doing by segment, flow/tracking of new products to market, growth and preferences of end-user groups.

President (8): Assurance on published financial data (vs. financial statements).

President (8): Would like on-line system that compares data to norms and flags unusual numbers and events.

President (8): Competitive information, but recognizes unlikely to obtain proprietary information.

CFO (16): Measuring competitor evaluation.

President/Co-CEO (27): Audit function-benchmarking-thinks value could be added if auditors could show how other contractors accomplish tasks or perform functions more efficiently.

CFO (30): Comparisons to others, e.g., on operating leases; benchmarking on key ratios.

CFO (30): Helping CEO determine if company is staying abreast of best practices.

CFO (36): Benchmarking of financial comparisons and operating performance measures.

CFO (41): Providing the MD&A letter of 5-6 similarly structured companies around the country as part of the audit.

CFO (41): Trends and techniques work (e.g., market sizings/opportunities), including any information of companies and markets internationally.

CFO (42): Direction on industry development; not benchmarking, that basic data is already available.

Other management comments

Executive vice president (9): Benchmarking of private sector clients and suppliers of some use.

Director of budgets (17): Benchmarking: measurements used by world-class companies.

VP marketing/sales (31): Benchmarking: EDI, logistics, competitive evaluation.

CIO (39): Exhaustive market data.

Service concepts

On-line or published databases for industry data or comparative financial information published in the financial statements. (The data could be provided and reported on by the CPA or merely made available for inquiry or use by users.)

Benchmarking

Providing assurance on industry data

Designing criteria for industry reporting

Exception reporting from industry norms (real-time basis)

How the Entity's Results Comport With its Strategic Plan

Customers are interested not only in historical results, but also in the entity's strategic position. They want more information on the strategy and whether the entity is achieving it. (The need for prospective data was discussed under forecasts and forecasting systems.)

Investor comments

Corporate finance (23): Inconsistency between projected and historical data. Spend enormous amount of time trying to reconcile the two methodically; need a service that makes the reconciliation a perfunctory activity.

Board/audit committee comments

Board member (25): Audit committees require various tests to monitor goals and performance, e.g., measures of customer satisfaction.

Senior management comments

President (8): Information in reports should be put in context showing how historical financial information fits into the strategic business plan.

CFO (16): In the future we will need full integration of our business systems with our financial system.

Other management comments

Director of budgets (17): Assistance on inputs to prospective decisionmaking and tracking investment performance in product portfolio.

Service concepts

Alignment of accounting to decisionmaking

Comparison/reporting on achievement of goals (for external or internal use)

Navigating the Information

Some customers indicated that they need help to determine the relative importance of available information and to interpret its meaning.

Investor comments

Institutional investor (2): More qualitative assessments by CPAs beyond yes/no reports (e.g., on materiality of environmental uncertainties).

Institutional investor (3): Indication of whether accounting practices are aggressive or conservative would be helpful.

Institutional investor (3): Financial statement footnotes should show more detail and highlights.

Director of research (22): Opinions on management's interpretations of accounting standards/practices (aggressive/ conservative); analysts need to know how data have been manipulated. Opinions on materiality and quantification of companies' contingent liabilities.

Creditor comments

Senior credit officer (5): Greater indication from auditors as to which footnotes are important.

Senior credit officer (5): Indication from auditors as to whether the company's accounting practices are strict or loose interpretations of the accounting rules; opinions as to whether companies are using higher or lower risk accounting.

Credit officer (21): Critique of management's plans in problem situations.

Credit officer (21): More detailed comprehensive financial statements pertaining particularly to bankers concerns: why things happened, measurement of materiality.

Credit officer (21): Greater access and interplay with client's auditor.

Board/audit committee comments

Chairman (1): The auditor should surface to the Board broader concerns and judgments.

Board member (24): More focused disclosure statements; too many superfluous requirements (FASB and SEC).

Board member (25): More qualitative insights needed to raise quality of reports.

Board member (38): Need plainer language in audits and need audit summaries.

Senior management comments

President (8): Areas of important information for decision-making: synthesis, not calculation to aid decisionmaking in midst of complexity of available information/alternatives. In addition to financial data looks at character, resources, and technology.

President (8): More descriptive reports (e.g., statistical confidence levels).

President (8): Scales vs. yes/no opinions.

CEO (26): Identifying material cost and revenue factors and presenting them in an easily understood manner for the CEO and his audiences.

CEO (26): Helping management really understand the specific reasons each cost element exists; many companies in trouble don't know why.

CEO (26): Modeling of the business with monthly reporting of material factors; can't do it without accountants (likes a graphic presentation of results and future scenarios).

CEO (28): Common data definitions governing various areas in banks: finance; risk management-netting risks to determine actual exposure; derivatives; off balance sheet.

President (40): Benchmarking: key ratios among competitors/peers, success in segments and sectors.

Other management comments

Corporate secretary (19): Need to interpret what is estimable, probable, etc.

CIO (39): Capability of sifting through reams of data quickly/automatically to get salient/vital data needed.

Service Concepts

Financial interpreter

Qualitative analysis and commentary

Critique in problem situations

Direct communication with users

Other Data

Customers identified certain other data they would like to receive.

Investor comments

Institutional investor (3): Need data/analysis on: R&D cost trends, backlogs year-to-year, product/service competitiveness and share-taking potential (including R&D expenses vs. competitors, new product introduction success rates, warranty reserve trends, customer-service function effectiveness).

Institutional investor (3): Supplier relations very important to know; is company being put on cash basis for example.

Corporate finance (23): Demographic, economic, unemployment data for the industry.

Research director (33): FASB disclosures are not enough; beginning to reach for non-financial performance measures.

Deputy executive officer, head of research (35): Annual report is too aggregated; badly need segment data: division breakouts, market share, cost disclosures.

Government comments

Senior executive-federal agency (34): Assets are not marked to market, soft assets are not included, hedging activities are not clearly reflected.

Senior executive-federal agency (34): Public needs to know that prospective data are not as accurate as historical data.

Senior executive-federal agency (34): Adding greater reliability to more relevant information is big opportunity to add value.

Board/audit committee comments

Board member (24): Real Estate portfolio evaluation/valuations.

Board member (25): Opinions to Audit Committee on the "Reasonableness" of cost allocations (Ref: allocations among 200 Fidelity funds).

Senior management comments

CEO (7): Desires information on what competitors are doing by segment, flow/tracking of new products to market, growth, and preferences of end-user groups.

CFO (16): Measuring contribution of products/customers: product costing, functional benchmarking, best practices, competitor evaluation, shareholder value.

CEO (26): "Religious" matching of expenses and revenues; very high value; Monthly, weekly, daily line of business structuring; timing of cash flows critical.

CEO (26): Assurance on tax treatment of long-term subcontractors (i.e., keep non-employee status).

CFO (29): International tax is a huge area of concern; highly complex given five different ways to account for each right.

CFO (30): Assurances on real factors of the business, not just numbers.

CFO (41): Salary and benefits analysis, particularly for [critical] programmers.

CFO (41): Controls, data, and information regarding the software side of telecommunications products and services.

CFO (42): Assistance on compensation program.

CFO (42): I would like to put the CPA on retainer just to bounce ideas off of them.

CFO: Real-time opinions on management, financial state, business case, and assumptions underlying projections in meetings with investment community.

CFO/CIO (44): The company needed a valuation of the company.

CFO/CIO (44): Market research: scoping out market opportunities for new products and quantifying the value of such opportunities.

Other management comments
VP marketing/sales (31): Consumer Information: trends, demographics, attitude shifts

Service concepts
Identify appropriate measures
Set up measurement systems
Reliability assurance
Relevance assurance
Measure and monitor nonfinancial factors
Generate reliable data as systems operate (real time)

Improving the Decision Process

Reducing the cost of data gathering and analysis

Some customers wanted assistance in making accumulating and analyzing data more efficient.

Creditor comments
Senior credit officer (4): Could use standard spread sheet product to simplify and standardize the loan analysis process.
Senior credit officer (4): Tools/models for better portfolio risk rating and risk concentration management. (Current system is like timing your cookies to a smoke alarm.)
Senior credit officer (4): Accurate portfolio grading would allow investors to discern the quality of assets and could increase high-quality banks' P/E ratios.
VP-commercial credit (32): Examination/establishment of risk rating system.
VP-commercial credit (32): Certification of proper categorization of loans

Senior management comments
CEO (7): Needs computer-to-computer links to suppliers in Asia.
CEO (7): Needs easier order-entry system and automated security design, customer terminal links.
CFO (16): Paying employees accurately and on time is where value can be added by driving out costs. The finance function should be focused on markets and production.
CEO (26): Prototype, then develop, profitability reporting monthly.
CFO (36): Many mid-sized companies could use help in modeling the business going back three years and forward three years. Could be value in an accounting firm looking at the validity of model being used no matter what size of company.
CFO (42): Finds current system using ASK software inadequate but can't now afford to change it and replicate historical data.
CFO (42): Assistance in complying with SEC electronic reporting requirements and getting on the Internet.

Service concepts
Outsourcing services
Developing decision-support systems or models
Portfolio rating and risk concentration
Analyze/monitor companies providing outsourcing services

Improving timeliness of data

Some customers indicated that the data they use needs to be more timely.

Investor comments
Director of research (22): More timely release of companies' financials (30 days, not 90 days).

Creditor comments
Senior credit officer (5): Very few things needed on a real time basis.
Credit officer (21): Early warning system, looking at key risk factors: inventory values/writedowns, cost of goods sold analysis, cash management, accounts receivable, monthly/quarterly changes, covenants, legal liabilities/contingent liabilities, credibility of expenses, software and other dependencies, distribution agreements, derivatives activities.
Credit officer (21): More timely delivery of audited financial statements after year-end (vs. 90-120 day lag).

Board/audit committee comments
Board member (38): Need weekly results, not quarterly or even monthly.
Board member (38): Outside oversight and controls, and peer comparison would be useful in a "real-time" world.

Government comments
Senior executive-federal agency (34): Providing real-time information seen as same as what buy-side analysts do.
Senior executive-federal agency (34): Quarterly reckonings, weekly or daily of course would help, but not seen as replacing annual audit cycle.

Senior management comments
CFO (16): Knowing the exact value of receivables is part of the business, but getting the information quicker and cheaper adds value.
CFO (30): Real-time assistance in decision making (special projects beyond audit): structuring deals; property exchanges; work together with bankers.
CFO (42): Need information on measuring sales and productivity of new direct sales force but can't afford the cost of a real-time system.
Chairman (43): Accurate and immediate credit and demographic data; data is received in real time on laptop computers.

Other management comments

VP-corporate auditing (20): In how we service customers we need good systems for instant feedback. Need more real-time information.

VP-corporate auditing (20): Need to be able to reduce time we close our books from 15 days to 2 days. Need benchmarks to use to accomplish this.

Service concepts

Generate reliable data as programs operate (real time)
Real-time exception reports
Continuous auditing
Systems design

Creating New Scorecards

Several customers indicated that they needed new things measured, and there was a need for measurement tools or criteria.

Creditor comments

Senior credit officer (4): Accurate portfolio grading would allow investors to discern the quality of assets.

Senior credit officer (4): Need assistance in establishing controls for nontraditional businesses.

Senior credit officer (4): Banks are thinking about pooling together to self-insure; they will need accurate data and internal reporting standards.

Senior credit officer (4): Next wave of securitization will focus on small and mid-market company loans. May be packaged and sold off altogether or may sell participations. Need standardized accounting for these instruments.

Senior credit officer (6): A significant need exists for assurance in portfolio valuation, particularly with regard to understanding revenue streams and quantifying risk of loan portfolios being considered for purchase or sale.

Government comments

Senior executive-federal agency (34): May need to develop standards of measurement for soft assets.

Senior management comments

CFO (36): The AICPA should look at how to get accounting closer to cash; it has diverged so much.

Other management comments

Director of budgets (17): Measuring the value-added to company of various components. Aligning the accounting to decisions and judgments to aid in decisions.

VP-corporate auditing (20): Need to audit less by geographic location; more by major business processes.

Service concepts:
Whenever there is a lack of criteria, potential services exist in creating the criteria and reporting against them or designing or reporting on related systems.

Help in Making Decisions and Increasing Profitability
Some users want the CPA to become more involved in running their businesses. They want the CPA to provide advice, help make decisions, and use his or her networking skills.

Creditor comments
VP-commercial credit (32): Accountants might be able to work with bankers to identify where creditors could drive risk down; could lead to lower loan pricing.
VP-commercial credit (32): Accountants ought to help their clients get the best banking deal. They are in a great position to help negotiate pricing.

Board/audit committee comments
Board member (24): Added value from CPAs' knowledge of the company; primarily in identifying ways to save money.

Senior management comments
CEO (26): Ask the CEO what he thinks are the most important factors impacting the business, don't just accept the financial statements.
President/Co-CEO (27): Accounting firms should be more proactive; networking clients to solve problems.
CFO (30): CPAs should be a business partner, part of the management team to help us grow and prosper: how can I do it? how can I improve? Help us make decisions, e.g., best way to buy/sell property or the best way to finance a deal.
CFO (30): Work together with bankers.
CFO (36): Welcome help on reengineering internal audit and tax functions.
CFO/CIO (44): Identifying sources of financing.
President (40): Measurement of reporting of job costing, controlling resource utilization.

General Trends — Public Sector

Six interviewees worked in the public sector. In addition, one individual in the private sector is active in community activities and serves on several boards in that capacity. The specific needs categories in the chart "Summary of Common Needs" above apply to the public sector as well as the commercial sector. However, unique trends were apparent in the public-sector interviews, and the commercial and public sectors represent distinct markets.

There were three general trends: improving the effectiveness of operations, improved decisionmaking, and increasing efficiency/decreasing costs.

Improving the Effectiveness of Operations

Performance/Outcome Auditing

Customers were interested in assurance about the effectiveness of programs and their actual outcomes.

Comments

Agency head-federal agency (10): Needs expanding for assurance and controls in health care area, especially managed care.

Agency head-federal agency (10): New requirements are being placed on federal agencies to monitor program outcomes: definition of financial and nonfinancial criteria; monitoring and measurements.

Deputy director-federal agency (11): Design implementation and ongoing support of processes that enable measurement of outcomes/impacts of all key government programs.

Deputy director-federal agency (11): Helping agencies establish specs for financial and nonfinancial measures to be used in evaluating program outcomes: government will require assurances on program outcomes and will use third parties; intellectual challenge is setting the right measures, aggregation of costs across agencies related to individual programs, reporting accuracy and appropriate periodicity.

Deputy director-federal agency (11): Health care, especially Medicare programs, is an area in which audit/measurement requirements will abound.

Deputy director-city agency (12): Performance measurement

Auditing director-city agency (13): Benchmarking of agencies within a city against each other and against those in other cities.

Associate controller, state university (15): Quantitative evaluations of program effectiveness.

Associate controller, state university (15): The National Association of Colleges and Universities sets the standards for measuring performance (with assistance from the Big 6). The State University system complements this information by benchmarking off of comparable universities as well as drawing on historical data. Third-party attestation hasn't been needed in this area, but might be valuable.

Service concepts

Identify appropriate measures

Benchmarking

Set up measurement system

Assurance as to reliability
Measure and monitor financial and nonfinancial factors
Generate reliable data as programs operate (real time)

Improved Controls/Systems

Government users were interested in improving their systems to provide better information and control.

Comments

Agency head-federal agency (10): An area where greater assurance would be useful in inventory controls.

Deputy director-federal agency (11): Systems for mandated government-wide financial statements and controls and related accounting standards to be applied across all government agencies.

Deputy director-federal agency (11): Fraud detection/prevention is an area of weakness in system today: inventory, subcontract abuse.

Deputy director-city agency (12): Recommendations on how to fix controls; more of a consultant's approach.

Deputy director-city agency (12): Maintaining confidentiality of information, especially in "open" systems.

Auditing director-city agency (13): Help in applying A-133 audit requirements of the federal government to nonprofit organizations contracted by the city: assurance that city agencies are controlling their money correctly, greater consistency and control in applying A-133, greater scrutiny of smaller agencies and programs on compliance with contracts.

Auditing director-city agency (13): Greater controls of subcontractors on major block grants.

Vice chancellor, state university (14): Auditors can help improve budgeting systems.

Service concepts

Providing assurance on processes
Systems integration and design
Develop controls and rational applications for management of assets

Improved Decision-Making

Models/Analysis

Some users wanted better decision tools.

Comments

Agency head-federal agency (10): Inputs to economic models and analysis, e.g., GATT models, cost estimates for resolving environmental problems, cost-benefit analyses of proposed regulations.

Deputy director-city agency (12): Assistance in defining and articulating mission statements.

Vice chancellor, state university (14): Insights generated through an audit can be used effectively to optimize the budget process.

Vice chancellor, state university (14): We need a macro-perspective that integrates the individual audits of various departments.

Vice chancellor, state university (14): Better training of resources in various departments to make people more accountable financially.

Associate controller, state university (15): A prospective approach, rather than historical analysis, would be very valuable. Real need to understand the future better to plan effectively and maintain leadership on the issues. Needs include: five-year projections of tuition revenues set against expenses, sensitivity analyses and modeling to gain early signals on the future of university operations.

Associate controller, state university (15): Increases in the scope of third-party services might include: nonfinancial information and analysis for policy formulation, identification of education needs for future employment requirements and impact of demographic changes.

Associate controller, state university (15): Qualitative cost-benefit analysis of programs to aid in funding allocations and planning.

Associate controller, state university (15): Greater understanding and appreciation of the uniqueness of the client's context and dynamics involved.

(One interviewee active in community boards, indicated a need for more information on his own exposure and risks and on planning issues such as business attraction, taxation issues, and the population's future requirements.)

Service concepts

Goal-setting
Strategic planning
Assurance on process to facilitate forward-looking issues
Cost-benefit analysis
Development of criteria or reporting on nonfinancial data
Decision support systems or analysis
Qualitative analysis and commentary

More Reliable Data

Some customers, particularly at the federal level, indicated concern that the data they use for decisionmaking is of uncertain reliability.

Comments

Agency head-federal agency (10): Management controls needed in commercial entities, especially financial institutions: financial and nonfinancial factors, current year-end and periodic reporting inadequate, need risk management within financial institutions, companies with sophisticated financial instruments need assistance or more adequate controls (government does not have needed talent).

Agency head-federal agency (10): Asset valuations is an area crucial to decisions, but the information is very soft today.

Deputy director-federal agency (11): The government has a need for collection of comparable cost/data across government agencies (reliability).

Service concept

Assurance on other types of data or the systems that produce it.

Increasing Efficiency/Decreasing Costs

Cost reduction

Customers, particularly at the state and local level, were concerned with reducing costs and how systems or information could help them accomplish this.

Comments

Deputy director-city agency (12): Automating systems to reduce paper.

Vice chancellor, state university (14): Insights generated through an audit can be used effectively to optimize the budget process and identify ways funds can be better spent.

Vice chancellor, state university (14): Budget reductions are the most important issue facing us; the audit function needs to be developed around such cost reductions.

Associate controller, state university (15): Real challenge is to maintain our mission, but at less cost.

Associate controller, state university (15): Cost-benefit analysis of possible program cuts.

Associate controller, state university (15): Immediate requirements are for lowest-cost audits.

Service concepts

Systems design
Cost-benefit analysis
Outsourcing

Oversight

Much government-related work is contracted out. Customers indicated concerns about contractor relations.

Comments

Deputy director-federal agency (11): Subcontract/contract abuse is an area of weakness.

Deputy director-federal agency (11): Outside CPAs could play positive role in agencies highly dependent on contractors: contract management, controls, and collection data.

Auditing director-city agency (13): Greater controls and attestation of subcontractors on major block grants.

Service concepts
Analyze/monitor companies providing outsourcing services
Systems and report design for contractors

General Trends — Personal

Not everyone interviewed provided information about personal needs. This section summarizes the responses of those who did provide it. There were two major thrusts: information about product/service quality and personal financial planning assistance.

Product/Service Quality

Comments
Several interviewees indicated a desire for assurance on the quality of the following goods and services:
- Health care providers (3 interviewees)
- Schools (2 interviewees)
- Products (2 interviewees)
- Institutions, presumably financial institutions
- Construction contractors

Service concepts
Report on quality or assertions of various products or services
Rate products or services

Personal Financial Planning

Comments
The following personal financial planning needs were identified by interviewees:
- Investment planning (2 interviewees)
- Retirement planning (2 interviewees)
- Insurance
- Financial decisions
- Taxes.

Service concept
Additional personal financial planning services

Other

Other assurance needs for personal decisions raised were:

- Options for parental care
- Career information (e.g., what qualifications are required)
- Analysis of collectibles' value and markets.

Appendix
Interview Subjects' Decision-Making Positions

No.	Position	Type
1	Chairman	Board/Audit committee
2	Institutional investor	Investor
3	Institutional investor	Investor
4	Senior credit officer	Creditor
5	Senior credit officer	Creditor
6	Senior credit officer	Creditor
7	CEO	Senior management
8	President	Senior management
9	Executive Vice President	Other management
10	Agency head-federal agency	Regulator
11	Deputy director-federal agency	Regulator
12	Deputy director-city agency	Regulator
13	Auditing director-city agency	Community
14	Vice chancellor-state university	Community
15	Assoc. Controller-state university	Community
16	CFO	Senior management
17	Director of Budgets	Other management
18	Acct. Manager	Other management
19	Corporate secretary	Other management
20	VP Corporate Auditing	Other management
21	Credit officer(s)	Creditor
22	Director of Research	Investor
23	Corporate Finance	Investor
24	Board member	Board/audit committee
25	Board member	Board/audit committee
26	CEO	Senior management
27	President, Co-CEO	Senior management
28	CEO	Senior management
29	CFO	Senior management
30	CFO	Senior management
31	VP Marketing/Sales	Other management
32	VP Commercial Credit	Creditor
33	Research Director	Investor*
34	Senior executive(s)-federal agency	Regulator
35	Deputy Executive Officer, Head of Research	Investor
36	CFO	Senior management
37	Head of D&O Insurance	Board/Audit committee**
38	Board member	Board/Audit committee

39	CIO	Other management
40	President	Senior management
41	CFO	Senior management
42	CFO	Senior management
43	Chairman	Senior management
44	CFO/CIO	Senior management

* Interviewee is an observer of investors' needs, thus, has been categorized as an investor.
** Interviewee is an observer of board of directors' needs, thus, has been categorized as a board member.

Summary by category:

Board/audit committee	5
Investors	6
Creditors	5
Employees:	
Senior management	14
Other management	7
Government:	
Regulators	4
Community	3
Total	44

Megatrends Affecting Future Assurance Services

Societal change results from the confluence of many factors. Economic, social, and regulatory trends will change the context in which CPAs provide services in the years to come. They will affect the need for information and assurance services in the future. This section focuses on the trends that are likely to have the most potential impact and the resulting opportunities and threats.

Committee Process

The Committee identified broad macro-market trends and forecasted the future evolution of existing trends. The trends were analyzed to determine their broad macro-market implications and specific implications for assurance services. The Committee used these data to identify opportunities and threats and as input to identifying new markets and developing new services.

Conclusions

The eight trends expected to have the most effect on CPAs' services and their practices are listed below. They are in descending order (that is, largest to smallest effect):

- Information technology.
- Competition.
- Corporate structure.
- Accountability.
- Investment capital.
- Aging of the U.S. population.
- Globalization.
- Education.

A ninth trend — changes in the legal environment — is also expected to have a profound effect on CPAs' services. It is treated in Assurance Service Liability, which concluded that as far as assurance liability is concerned, the future cannot be predicted with sufficient certainty for outlines to be usefully set out.

Limitations

The Committee's determinations are the result of its deliberations, assisted by the consulting firm of Diefenbach Elkins. No additional findings from research on customer needs or on the future of the current service changed the determinations on external factors, but they are not otherwise supported empirically.

The opportunities generally fall into three categories: Providing needed information to companies, providing assurance on new accountabilities (including creating the criteria for measuring the accountabilities), and providing intermediary services on behalf of principals.

The threats generally relate to potential damage to the profession's image or reputation, increased competition, liability, and discontinuities caused by difficulty in adapting to new conditions.

Trends and Implications

The remainder of this section discusses each of the trends identified, their implications, and the opportunities and threats implied.

Information Technology

Trend. Information technology capabilities will continue to advance and costs will continue to decline.

Discussion. Technological advances will continue to make products smaller and information more accessible and user-friendly. Compression technology will allow high quality images to be manipulated by ordinary computers. Optical disk storage will increase in capacity. Networks will allow more efficient information flows. The future holds even cheaper processing power, new processor architecture, dramatic drops in the cost of memory, digital communications networks, new interfaces (such as handwriting and voice recognition) and new computing paradigms (such as fuzzy logic and neural nets).

The new technologies are changing the workplace and accelerating changes already underway. The following changes are already evident:

- Shift toward a service economy.
- Increase in home offices.
- Increase in mobile offices.
- Conferencing and networking.
- Flexible scheduling.
- Growth of contingent workers.
- Growth of self-employed workers.

Implications. More information will be available. Users will be able to customize information to meet their needs. Advances will permit radical changes in corporate structures such as outsourcing corporate functions to suppliers and distributors. These changes will raise security issues and change supplier-customer relationships.

Information will be accessed more quickly. Decision speeds will increase, which will put more pressure on companies. Conversely, information will become more perishable; old information will be less useful. The increase in the volume of information will cause a need for filters to synthesize or select relevant information.

Control can be automated. Controls will be more complex, requiring new knowledge and new decision models and an increased reliance on technologists. Paper will be eliminated, changing the risk of fraud and requiring new audit approaches.

Work units will become more decentralized. Efficiency might increase, but at the cost of corporate culture and with a need for additional accountability.

Technology will perform tasks currently done by both white-collar and blue-collar workers. The effects will fall disproportionately on less-skilled workers.

Opportunities and threats. The opportunities and threats and a far more detailed discussion of the nature of the trend are presented in The Effect of Information Technology on the Assurance Services Marketplace. The Committee concluded that this trend was so important that more detailed treatment was mandatory.

Competition

Trend. Competition among information-suppliers (including assurance-providers) will increase.

Discussion. Competition will continue to intensify among providers of traditional CPA services. New competitors will include large, well capitalized organizations not bound by standards or limitations imposed on CPAs. CPAs will also face competition as they try to move assurance services into areas not currently dominated by the profession.

Implications. Competition to provide information will come from a large number of sources, e.g., public and proprietary databases. Users will need help to navigate the information stream to find relevant information and apply it to their needs.

CPAs might not benefit in complex environments because they lack the image or competence that users would demand of others, such as MIS professionals. In addition, users might believe that complex systems are inherently reliable and thus not value assurance on them. On the other hand, increased complexity might engender discomfort in users, increasing demand for services by those who can reduce uncertainty.

In nonregulated services CPAs will face competition from a host of providers. Users might be confused by copycat trade organizations that provide certifications that sound like CPA but aren't. Some organizations or regulators might erect regulatory barriers to exclude CPAs from providing new services.

For regulated services, the profession might face increasing challenges to its monopoly on certain services. Large non-CPA firms or new technology might cause additional competition. Conversely, regulators might require that auditors take on additional responsibilities (such as providing assurance about fraud or safety and soundness) that don't result in larger fees because they are not valued by auditees.

Opportunities and threats. The threats in this area are more significant than the opportunities.

Opportunities

- Leverage reputation for expertise in internal control into new services.
- Leverage reputation for expertise in measurement into new services.
- Use reputation for trust as a competitive advantage.
- Use depth and breadth of client access for competitive advantage.

Threats

- Many new competitors have more resources than CPA firms.
- CPAs' traits — e.g., fastidiousness, little appetite for risk — do not make CPAs well suited to face new competition.
- The profession is generally not nimble in creating new standards to take advantage of opportunities.
- The partnership form of practice constrains firms' abilities to increase capital to compete with larger entities.

Corporate Structure

Trend. New business paradigms will propagate different types of relationships; there will be more alliances and joint ventures, temporary organizations, and similar types of operating methods.

Discussion. New technologies, competition, changes in worker relations, and attempts to control risk have led to the creation of new organizational structures. Communications and computer technology enable employees to work away from the office. Work has become a 24-hour proposition and is conducted in any location. Offices and businesses have become more disaggregated. Small businesses are proliferating. The *Fortune 500* companies account for less than 20 percent of total employment. Outsourcing has become common. So have alliances and joint ventures such as those in the technology industries. The result is more entities, more relationships, and more accountabilities. It also challenges the paradigms of how entities' financial condition and value are measured (e.g., arms-length transactions, entity concept, going-concern assumption, valuation of intellectual property rights).

Implications. New types of entities will result in new information flows. Decision-making and information systems will become more decentralized. Systems will need to be compatible to ensure that information flows are not disrupted.

Alliances and joint ventures will create new accountability issues — accountability of one partner to the other (which raises the need for access to confidential information) and of the joint venture to others (which might require new accountability standards and issues of contingent liability). There will also be more frequent issues regarding measurement of transactions not done at arms-length.

Outsourcing will increase. The number of small companies will increase as will companies' dependence on one another. This will create more accountabilities and the need for additional security and control, but will also create vulnerabilities when partners cannot fulfill their responsibilities.

There will be more temporary organizations — those established for a specific purpose that are disbanded when the goal is achieved. The focus of financial reporting will change from time-dependent to purpose-driven (for example, the going-concern assumption or long-term/short-term distinctions might not be relevant). There will be less loyalty among employees and from other parties. Issues regarding the winding up of operations might become important, such as revenue run-outs and responsibility for corporate detritus.

Many entities' missions will be less distinct. Public/private and profit/nonprofit distinctions will become blurred. There will need to be more accountability and consistency in accountability standards. Entities that historically did not compete might find themselves in competition for resources.

Opportunities and threats. The opportunities relate to providing (1) services as an intermediary between the partners and (2) administrative services for new types of entities. An increase in total companies should result in an increase in total opportunities.

Opportunities

- Provide outsourcing services; for example, financial management, tax, accounting, internal audit, EDP, human resources, and pension plan administration.
- Develop processes for safeguarding and monitoring activities.
- Develop IT systems for managing disaggregated organizations.
- Provide assurance on the entity's information to suppliers and customers.
- Audit royalties and income run-outs.
- Evaluate companies that provide outsourcing either when they are selected or on an ongoing basis.
- Establish processes, controls, accountability, or performance criteria for joint ventures.
- Provide arbitration and valuation services.

- Provide liquidation and reorganization services.
- Provide services (for example tax audits) on contract to the government.
- Provide archival services.
- Analyze outsourcing (make or buy) decisions.
- Design organizational structures.
- Facilitate relations between partners.

Threats
- Increase in entities might invite new entrants into the market, resulting in fee competition.
- Increased conflict and litigation.
- Competition from non-CPAs.

Accountability
Trend. There will be a steady increase in demands for accountability throughout society.

Discussion. Accountability is the reckoning owed and provided by one party to another regarding some past or future action. As society creates new relationships and companies form new ventures, there is an increasing need for accountability among parties. Advances in information technology lower the cost of providing accountability; the risks of not getting it can be great. Thus, demands for accountability will increase. However, the increasing volume and flow of information makes it harder to determine whether information is objective and reliable.

Issues of accountability exist in varied settings such as business (e.g., the use of capital supplied by others), government (e.g., whether schools are achieving results), and society (e.g., the environmental or social costs of activities). As the cost of providing accountability decreases and trust declines among people in general, there will be greater demands for accountability. There might also be greater demand for external verification of the claims of the party providing the accounting. To a large extent, the recent increase in litigation might be seen as the result of a failure to provide adequate accountability.

Companies typically owe accountabilities to capital suppliers, goods and services suppliers, customers, employees, and the community. CPAs are generally involved in providing services on the accountability to capital suppliers; the other accountabilities present substantial opportunities.

Implications. As business activities are deregulated by the government, there will be more oversight by others. Investors, joint venturers, borrowers, and management will demand more accountability from those with whom they deal. There will be more oversight and more review of activities and results. Systems will need to be designed to provide this information. In addition, there will be less privacy in operating results even for nonpublic companies.

Government and other public activities will be called on to provide more accountability. There will be fewer programs and their growth will slow. Most grants will be audited and there will be fewer small non-profits. There will be an emphasis on operating results and a concurrent demand for effective control structures and measurement criteria for programs.

Pension funds will grow (because of the aging of the population) and will wield more clout. They will become overseers of operations. Some might obtain seats on the boards of directors of companies they hold shares in, although others will shun this approach to avoid becoming insiders. Pension funds might even hire their own auditors to protect the interests of the enrollees. They might require new measurement criteria for comparing holdings.

The CPA profession will undergo change. There will be further concentration in the market for attestation services. The number of small CPA firms will decrease as they merge to provide economies of scale. However, successful smaller firms will exploit market niches. Standard-setting will need to become more responsive to address services on the new accountabilities. CPA firms will, of course, not be immune to the demands for accountability; there will be additional oversight or regulation of the profession.

Opportunities and threats. The opportunities are to provide services to, or develop criteria for, the parties CPAs don't serve now: suppliers, customers, employees, and the community.

Opportunities

- Identify/detect chicanery.
- Assess management and its operations.
- Report on the beneficial use of funds in not-for-profit/publicly funded programs.
- Develop and apply measurement criteria for effectiveness of not-for-profit and government programs.
- Evaluate employee benefits.
- Provide environmental audits.
- Audit suppliers or customers; e.g., ISO 9000, assurances on their management, financial health, products, services, delivery, timeliness, competitiveness, and compliance regarding intellectual property rights.
- Assist in establishing accountability among parties as an alternative to litigation or arbitration.
- Convert the CPA's service to a user-pays model, where accountability is set by contract.

Threats

- Regulation of the profession by a new, unfriendly oversight agency.
- Potential competition in new economic space; CPAs might lack "permission" or competitive edge.
- Increased liability exposure.

Investment Capital

Trend. Capital flows are changing; principals will have new relationships, concerns, and accountabilities.

Discussion. Institutional investors hold about half of the total market value of securities. Institutional investors include pension funds, mutual funds, insurance companies, bank trust departments, and foundations. The largest institutional investors (e.g., CalPERS, TIAA-CREF, Fidelity) simply cannot leave the market. Many individuals have also entered the stock market directly or indirectly either because of the low returns offered by insured institutions or because of shifts in the types of retirement plans in use. In addition, capital flows have been changed by globalized lending.

The private investor typically has only indirect contact with the investee. Their relationship often involves a series of intermediaries, such as brokers and advisors. As information costs decline, private investors may be able to effect trades and obtain information bypassing one or more intermediaries. They will deal much more closely with the investee. However, this will require that private investors (1) make use of information technology and (2) have the time necessary to undertake these responsibilities on their own. While technology may well be available, current trends suggest that less discretionary time will be available to most individuals. Thus, at least some intermediaries might still be necessary — for example, one who adds value by reducing risk.

Implications. Capital will be concentrated in institutional investors, primarily mutual funds and pension funds. Large funds will become immobile and thus will hold positions for the long term. This will create closer relationships between funds and investees. Very large concentrations might also create a risk of catastrophic failure resulting in the need for more controls over them, risk-reduction products, and greater accountability.

When intermediaries are used there will be new pressures on the intermediary. The need for greater efficiency will result in price pressure and the need for accountability to investors.

To reduce their inflation and investment risks, companies will continue to shift from defined benefit to defined contribution pension plans (including 401k plans). Individuals will become more responsible for their investment decisions and will assume more risk. Individuals will need customized investing strategies and detailed understanding of tax laws. If this shift results in retirees' income falling short of their needs, the government might force a policy shift back to defined benefit plans. In addition, companies might face litigation if they failed to provide adequate retirement-planning advice to their employees.

There will be an increase in globalized lending. U.S. companies' borrowing costs might increase as might foreign control. Risk-reduction products might become more prevalent. The financial services industry in the U.S. might restructure to resemble the large financial companies in other countries. There will be a need for internationalization of accounting standards.

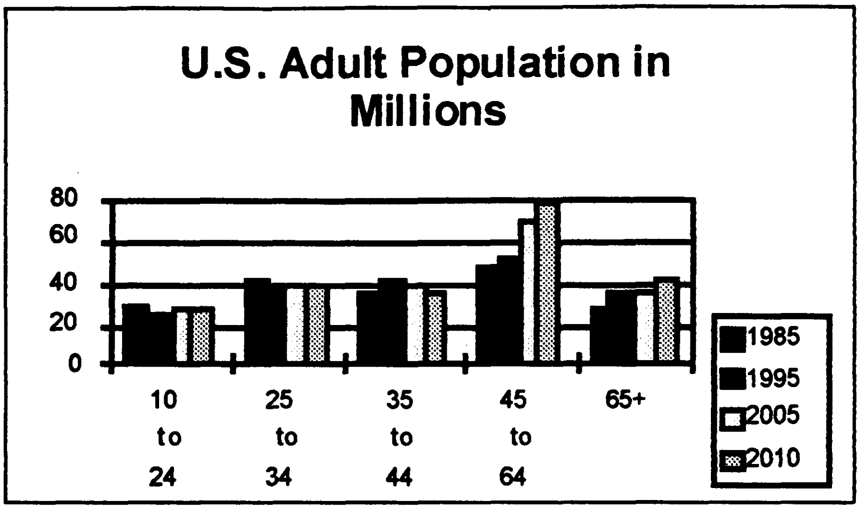
Opportunities and threats. The primary opportunities are three-fold: to develop and apply new standards relating to intermediaries, to function as a shareholder advocate, and to provide investment advice and management.

Opportunities
- Evaluate intermediaries (such as those that hold assets or provide advice) or measure their performance, objectivity, controls, or risk.
- Develop for intermediary investors information such as industry benchmarks, fundamental business data or operating information, or information customized for users' needs.
- Report to the board of directors on performance and risk.
- Report to the board of directors on the enterprise and its management.
- Provide to investors customized measurements and evaluations.
- Act as advocates for shareholders (e.g., perform analyses on behalf of investors, help shareholders develop goals to help management improve performance).
- Develop software for risk management.
- Manage pension plans or 401k plans.
- Provide telephone advice (e.g., 900 numbers) for 401k participants.

Threats
- Loss of objectivity or independence from straying from audit service.
- Loss of image.
- Competition by others such as brokers.
- Competition by our customers (e.g., CalPERS could insource this work).
- Potential loss of audit franchise if CPAs stray too far from basic services.
- Cost and possible lack of access in an adversary role.
- Increased litigation.
- New regulatory barriers.

Aging of the U.S. Population

Trend. The U.S. population is aging. The average age is increasing, and there will be a concentration of people in the higher age groups.



Discussion. This trend is relatively certain. All the people who will make up the cadre of older Americans have already been born and can be counted. Changes in mortality and immigration create only moderate uncertainty. According to the U.S. Census Bureau, the median age of the U.S. population will rise from 30 to 37 between 1980 and 2000. In 1985, persons over 65 represented about 17 percent of the adult population (that is, those 10 and over) and those 45-64 represented 26 percent. By 2005, these are expected to increase to about 18 percent and 33 percent, respectively. They are expected to increase to about 18 percent and 36 percent in 2010, comprising about 120 million people.

The working population will age also. The demographic forces in place will be exacerbated by three other factors: (1) the prohibitions against forced retirements and banning of age discrimination, (2) the need for older Americans to keep working because of the inability of Social Security to support them, and (3) the decline in the number of young people entering the workforce.

Implications. The pension obligations of older Americans will mature. The need for accountability will change as these older persons change their concerns from asset growth to safety and soundness. There will also be intergenerational conflict. The enormous demands on pension and social security funds by this large population will require some changes in funding or payment plans. Taxes or contributions paid by the younger, working generation will increase, or else the amounts paid to the older, retired one will decrease. To be considered equitable, policy decisions will need to be made based on sound data.

There will be changing economic priorities spurred by the increase in the older population. Emphasis will be placed on frugality, thriftiness, and economic safety resulting in more comparison shopping. There will likely also be more difficulty in funding some government programs (such as education).

There will be an increasing need for third-party care. Elders' needs will range from supervision of health care and personal care to financial affairs. Those who provide these services will see an increase in demand, but, due to the enormous costs of these programs across society, there may be a need for more accountability or evidence of cost-effectiveness.

There will be a concentration of elderly in some areas of the country, for example, the sun belt (elder immigration) or old rust belt or farming areas (youth emigration). These areas will experience an increase in demand for some government services and may have a shortage of workers.

Opportunities and threats. The opportunities appear to be in the following areas: services on government programs, services to the elderly, and services to companies on behalf of the elderly.

Opportunities

- Analyze corporate benefits (for example, elder care) and funding.
- Increase intensity of pension plan audits, treating them as unique entities with unique constituents rather than as extensions of the sponsoring entity.
- Increased personal financial planning services.
- Evaluate performance of third-party health care providers.
- Certify product quality and attributes.
- Trustee/estate-management services.
- Fraud-protection services.
- Measure performance of government services using financial or nonfinancial measures.
- Assist merging services/entities for efficiency.
- Establish new scoring rules to resolve or inform the intergenerational conflict.

Threat

- If the profession doesn't grow, the aging of CPAs will exacerbate decline.

Globalization

Trend. There will be increasing international trade and cross-border activities.

Discussion. International trade has been made easier by advances in information technology. Trade agreements such as NAFTA and GATT have further opened up cross-border trading. Equity markets have become internationalized. There has been an increase in market-driven economies. There will be a need for international accountabilities.

Implications. The increase in international trade will require the understanding of activities in other countries with diverse customs and business climates. Standards will be needed to ensure information is comparable.

Opportunities and threats. The opportunities relate to expanding the services to a global market and providing intermediary services for companies dealing in diverse cultures.

Opportunities
- Export standards and assurance globally.
- Establish and apply global standards for information flow.
- Interpret local regulations.
- Design or provide assurance on global control structures.
- Provide translation and reconciliation services.

Threats
- Increased competition from foreign assurance providers.
- Poor international accounting standards.

Education
Trend. Educational achievement in the United States (particularly in public school grades K-12) is declining and will not improve appreciably in the foreseeable future.

Discussion. It is widely acknowledged that the public education system in the United States has deteriorated in recent decades. In a 1973 Gallup poll 58 percent of respondents said they had a great deal of confidence in the American educational system. In 1991 the percentage had fallen to 44 percent. American students' math and science scores have been consistently lower than those in many European and Asian countries. In 1996, for example, the Third International Mathematics and Science Study indicated that U. S. students' scores in math and science ranked twenty-eighth and seventeenth among world nations.

Implications. U.S. workforce quality will decrease. Because the public education system provides most of the raw materials to the workforce, defects in quality will affect the output of American business. Businesses will have to restructure and simplify tasks for employees to be able to handle them. Communications will have to be made more basic. Because workers will be less dependable than computers, and the cost of computers will continue to fall, there will be a decrease in the number of available jobs for many kinds of workers, although there will be a continued demand for programmers. Because this problem affects the U.S. more significantly than other countries, there will be a relative decline in U.S. wages.

Public school problems will be exacerbated. School employees, heavily unionized, will resist changes to the system and become more militant. At the same time funding for schools may become more difficult as the population ages and taxpayers' priorities change. To be funded, new programs in public education will have to be shown to increase effectiveness. Another factor in the decline will be that women, who accounted for most of the teacher workforce, will more highly populate other, higher paying professions, causing a brain-drain in the teacher ranks.

There will be a movement towards alternative forms of education: home schools, private schools, privatization of public schools, and, perhaps, businesses taking more responsibility for education.

Opportunities and threats. Opportunities fall into the following categories: providing services to educational institutions and those who make decisions about them and providing services to compensate for others' lack of education.

Opportunities

- Establish and apply standards for educational outcome measurement.
- Establish and apply standards for teacher evaluation.
- Certify educational institutions.
- Establish university training for accounting rather than leaving it to educators.
- Establish and apply education criteria for enterprises/industries to hold educational institutions accountable.
- Certify/test job applicants.
- Assist in job simplification and automation.
- Provide intermediary services to read and interpret information of others for an uneducated public.

Threats

- Accounting students will be poorly educated and not prepared for the profession.
- Education community will resist change.
- Potential customers (who are less well-educated) will not understand the CPA's products or messages.
- The under-educated will become have-nots who will rebel against the well-educated elite, including CPAs.

The Effect of Information Technology on the Assurance Services Marketplace

This report of the Special Committee on Assurance Services consists of six sections:

Introduction

The scope of information technology and its rate of change are redefining key aspects of civilization. No business will be untouched by its influences, and every business that wants to retain its viability must, at a minimum, learn, reconsider, and adapt.

Information technology empowers us to do things we hadn't thought of before and to do things we have done before in new ways — for example, to instantly move money around the globe, to control robots, and to perform calculations and recordkeeping at rates, in volumes, and with precision that would overwhelm armies of clerks. Modern organizational structures are possible only because of information technology, and it has begun to seriously affect how we work (e.g., in teams around the globe) and how we learn (e.g., via "virtual reality" simulators). Taken up by the business community, driven by the profit motive and competition, the power of information technology has helped generate a great transformation in products and services. Nevertheless, our experience to date is just the beginning of a more profound and far-reaching series of changes.

The accounting profession must understand the effects these changes will have on today's services and on the marketplace for new services. In the tired dualism, there are opportunities and challenges. The profession must devise how best to respond to them. The alternative is not appealing, because information technology will make new competitors possible and diminish demand for services delivered in traditional ways.

In thinking through how information technology can influence the assurance function, it is useful to focus on the sequence of change. Basic enabling technologies, such as the logic processor in a computer, form a foundation that makes possible new software applications ranging from accounting packages to business simulators. In turn, these new applications allow businesses and other organizations to operate differently. They may use the enabling technology and applications to develop new products, such as financial derivatives, or new ways of providing products and services, such as through on-line order-entry systems. Finally, the changes in businesses and other organizations affect relationships between parties to assurance services. For example, the changes influence relationships between information producers (e.g., corporate preparers of general purpose financial statements or preparers of managerial accounting reports) and information consumers (e.g., managers using internal reports, investors using corporate financial statements, or donors using the reports of not-for-profit organizations). The changes also influence relationships between and among assurers and information producers and consumers. ("Consumer," "user," and "customer" are used interchangeably throughout this report.) In this way, the changes shape the potential for assurance engagements.

The organization of the remainder of this report is based on the sequence of change just described. It moves from enabling technologies and applications and their effects on business, on information producers, and on users to the opportunities these changes present for assurance services. The report concludes by presenting briefly the constraints and barriers that could impede the profession's progress in taking advantage of the opportunities and several policies to begin to overcome those constraints and barriers and take advantage of the opportunities.

Enabling Technologies

There are four basic categories of hardware components in today's information technology. Although interrelated, each has its own evolutionary path, and each is on a fast-rising curve plotting the ratio of increasing capability to decreasing unit cost against time.

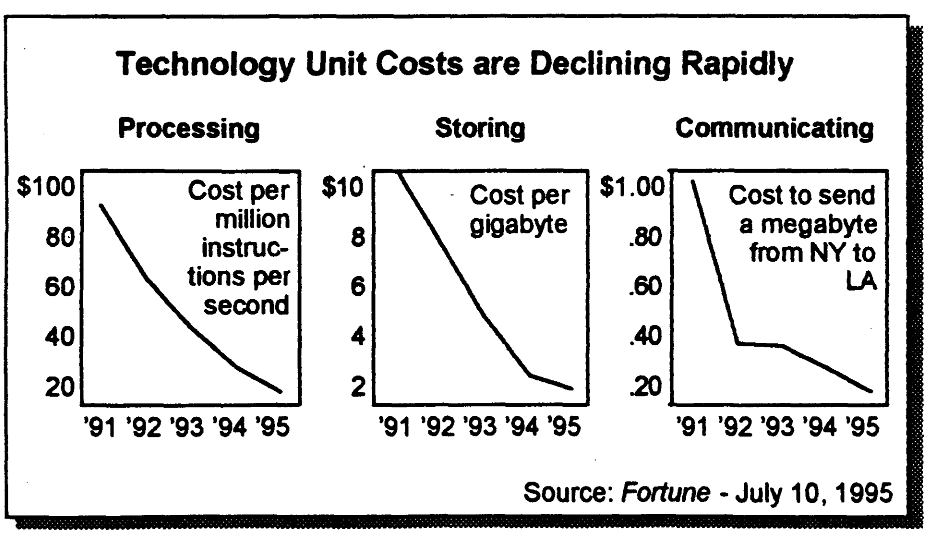
Processors oversee the functions of the computer and process the data (e.g., adding numbers, comparing sensor readings, issuing instructions to factory equipment, preparing reports). Processors such as Intel's Pentium and Motorola's PowerPC are significantly more capable than the previous generation (only a couple of years old), at roughly the same or lower prices. The number of components that can be integrated onto a chip doubled every year from 1960 to 1970. It has continued to double every year and a half since then. As a result, the average desktop computer today has more power than the largest mainframe in 1965.

Communications capability (sometimes called "bandwidth") is a measure of the capacity of the transmission line or other device connected to a computer to transfer data. A standard telephone line has a relatively low capacity compared to the coaxial cable transmitting to televisions. Both are effective in their original roles because much more electronic information is required to broadcast a television show of moving video than to reproduce voices in a telephone call. However, telephone lines may eventually deliver full-motion video thanks to sophisticated signal processing and compression. Continuing advances in "wireless" communications and satellites allow communications bandwidth to be increasingly mobile. Eventually, wireless networks and personal communications devices could allow individuals located anywhere to send and receive data. The much-discussed "Information Superhighway" refers to a system integrating different networks, both wired and wireless, into a single integrated communications system. Already the Internet is a global network of networks with many capabilities envisioned by the Information Superhighway concept.

Memory refers to the electronics for storing information for future reference. Types of memory vary according to how the information is stored, how much can be stored, and how quickly a computer can retrieve it. Fixed disks, floppy disks, and tapes are types of storage devices.

Sensors capture information about the physical world. For example, a sensor may monitor the temperature of a piece of metal being machined, the flow rate of a fluid through a pipe, or the stock number and price code of a roll of paper towels at a supermarket. Sensors can feed computer systems data about things and events. For example, the scanner at the grocery check-out counter captures information about the roll of paper towels, feeds it to the cash register to display the customer's purchases, and conveys it to the store's inventory systems to make timely replenishment possible. Sensors can be integrated into highly specialized computers dedicated to a particular purpose.

Each of the four enabling technologies described above has already undergone extraordinary expansion with rapid reductions in costs. The figure below shows the last five years of cost improvements in processing, storing, and communications capabilities.



Basic research and development already completed will allow this trend to continue into the next millennium, increasing computer power exponentially, while unit costs continue to fall.

Related Technologies

New forms of computing are on the scene and being developed that are close to being new enabling technologies. Parallel processing hooks together hundreds or thousands of individual processors into a network of processors that act jointly. Even a fast single processor like Intel's Pentium can do only one thing at a time. Parallel processing can perform many computations simultaneously, for example, searching a large database for a particular piece of information. Instead of searching sequentially through the database, one data item at a time, many parallel processors can *each* search a small portion, *all* at the same time.

Another emerging form of computing with tremendous potential is the neural network, an artificial intelligence application that can create new knowledge. Neural networks learn by inducing patterns from examples. The patterns distinguish the examples from one another. With this backlog, the neural network will categorize a new example based on the patterns it has induced from its database of prior examples. Neural networks can be used to identify loan applicants who are high credit risks or health problems based on patients' symptoms, for example.

Both parallel processing and neural networks are commercially viable today, though with limited markets, partly because of the complexity of the software needed to drive them. In time, both technologies are likely to be common in many business applications.

Software Development Technology

Since software is in essence an embodiment of human knowledge — for example, how to balance a checkbook (using a software package like Intuit's Quicken) — software developers must break down the components of that human activity and rebuild it in a form that the computer understands and that humans can interact with. There are now sophisticated tools to assist in these tasks, such as code generators and object-oriented programming.

Code generators rely on a set of relatively simple specifications to generate the programs ("code") necessary to store, access, and manipulate information. With object-oriented programming, each "object" is a building block of modular programming instructions that can be used to assemble a larger program. Combining such "objects" with data allows even greater programming efficiencies.

Simple versions of software that can "learn" are already arriving in the marketplace. For example, some of today's relatively simple "software agents" (see next paragraph) are able to keep track of how a computer is used and create shortcuts for frequently performed operations.

Software agents. Software agents can retrieve, analyze, and produce information. Sometimes operating together with sensors, software agents can provide built-in functions for tracking activities, data, or data about data (e.g., a measure of the former's reliability). With cheaper, more powerful hardware capabilities, these software agents will soon be able to perform more sophisticated information-related tasks — such as finding the best prices on a new computer or compiling analyses of the investment prospects for selected companies.

Security Technologies

Encryption algorithms mathematically encode information, and database protection schemes limit access to authorized people. These and other capabilities will provide higher degrees of security and data integrity, but additional techniques are needed to ensure the authenticity of information.

Computer viruses are a unique threat. Because they operate at the most basic level of what a computer understands — nothing but one's and zero's — viruses bypass the checks and balances built into higher levels of software, such as operating-system, database, and word-processing programs. This can allow a virus to do damage, such as erase an entire disk of information or blank the screen every time the mouse is clicked. However, there are vaccines that protect against classes of viruses.

Researchers at the Santa Fe Institute have created miniature software programs — much like viruses — that have the ability to rewrite themselves and evolve into more efficient versions. Used beneficially, this technology could substantially enhance the productivity of information technology. But, used malevolently, it could be among the most alarming threats to security.

User Friendliness Will Increase

Graphical interfaces have already made computing user-friendly, but additional technologies will add to ease of use. Because any information can be represented in digital form for a computer — whether it's a stock price, a new fashion design, or the sound of a voice — there will be more choices in communicating with the computer. Stock prices can be quoted audibly today, and as handwriting recognition gets better and voice recognition becomes possible, users might dictate electronic mail or perhaps vocally paint a picture.

Highly specialized, portable computerized devices are already part of our every day lives, from card-sized calculators to laptops used for word-processing. These devices, sometimes called "information appliances," will multiply, facilitating many routine tasks. For example, ordering a pizza or other restaurant menu item could become as simple as pressing a button on a device distributed free by the vendor. The personal digital assistant (PDA) will become more powerful and versatile, perhaps wrist-watch size with wireless communications and all the power of today's desktop computers. Many convenience devices will help train people to accept the more sophisticated advances of the information age, just as computerized games have filled that function in the past.

These capabilities, in addition to the others discussed above, and declining unit costs make it clear that most people will have access to sources of information, in real-time, no matter where they are. The business environment and personal life will be both information-rich and information-dependent.

Applications and Influences on Organizations

Backed by advances in enabling technologies, the range of possible applications is extraordinarily wide. So are their influences on the way organizations function, the demands they create for employees, and their power to perform tasks and help achieve objectives. New applications will solve problems, sometimes create new ones — for example, the behavioral problem of adaptation — and make possible new efficiencies. In an age where knowledge work is increasingly becoming the predominant mode of employment and the most assured path to business effectiveness, information technology is a key to competitive advantage.

The Way We Work

The bond between the employee and the fixed workstation, whether a desk or a position on an assembly line, has been eroding, leading to greater freedom for mobility. Travel has always enabled transactions to take place apart from one or both parties' home base, but today the options are much wider. Stock exchanges and commodity markets around the world pass the baton from one to another during the full 24 hours of a day. Employees overcome distances by telecommuting and the "office in a briefcase." They need never be fully away from the office, because a pager, a cellular phone, a personal digital assistant (PDA), and a notebook computer with a modem can bridge the distance.

The dispersion of work need not mean isolated work. There will be an increasing need for access to information, whether it is in the employee's firm's database, in the customer's, or in commercial databases. Over time, more and more of the information will be presented with a mix of voice, graphics, text, and video (multimedia). These will be joined to search technologies that enable areas of interest to be explored in greater depth.

Apart from access to information, there will be increasing access to coworkers, a phenomenon that has already begun to mature. Information technology can facilitate teamwork, and technology-supported teamwork has been proving itself a source of added productivity.

Information technology facilitates the flatter organizational structures that have appealed to efficiency-minded executives over the last decade. This is partly because information technology eliminates many manual clerical functions, makes others easier, and multiplies communications routes. It can be used to empower employees (e.g., through easy-to-use feedback channels) and to create unity (e.g., through messaging by electronic mail ("e-mail") and corporate bulletin boards). These capabilities reduce the need for hierarchical configurations.

Software Agents Will Perform Information-Related Tasks

Software agents, which can search and retrieve information, will influence many aspects of organizations and work, propelling the trends already mentioned. They can be used to monitor data and identify items that exceed predetermined ranges of acceptable values or tolerances. More sophisticated software agents will launch and dynamically develop applications to interrogate databases and process information. In addition, they may be used to validate information by monitoring agreement between the related data sets two entities produce for a transaction they have entered into. Software agents may also be used to identify unusual patterns or relationships in comparable data.

Specific software agents may be developed for individual industries. For example, trucking-industry software agents may be developed to locate the least cost or most reliable shipping alternatives for a specific shipment or geographical location. Other software agents may be developed to analyze the constantly changing array of venture capital investment alternatives, based on specific levels of acceptable risk and expected return.

Electronic Data Interchange

Information technology has made new products and services possible and reduced development cycle times. The window of opportunity to bring a new offering to market and to profit from it has narrowed, because the rate of innovation makes obsolescence set in more rapidly. On the other hand, it is easier to cater to customers' individual tastes.

Real-time inventory and sales information make it possible to adjust orders to suppliers' and production schedules. A clothing manufacturer connected to retailers by Electronic Data Interchange (EDI) might monitor the turnover of its products and note that bright yellows and greens are the most popular colors in Florida, but that New Englanders are buying clothes in purples and blues. The manufacturer can shorten the raw materials acquisition, manufacturing, and distribution cycle (through technology-supported just-in-time techniques) and deliver products specifically designed to sell in each market. Being able to respond to the market in real-time maximizes sales potential and minimizes the costs of carrying inventory that is not the right color, size, shape, or design for the market.

(A formal definition of EDI is "an exchange of electronic business documents between economic trading partners, computer to computer, in a standard format." The EDI infrastructure includes a standard message format, translation software, and a communication network. See S. Chan, M. Govindan, J. Y. Picard, G. S. Takach, and B. Wright, *EDI Control, Management, and Audit Issues* (New York: Information Technology Division, American Institute of Certified Public Accountants, 1995), pages 2-3. The first edition was published in 1991 by the Electronic Data Interchange Council of Canada.)

Information technology can be used to define market segments more and more narrowly, ultimately reaching a market segment of a single individual — permitting delivery of one-off products and services just as cost-effectively as mass-produced products and services. This end state is called "mass customization."

EDI already has a history and is growing fast. The first set of standards for data interchanges was published for the transportation industry in 1975. Generic EDI standards — i.e., standards that are not industry specific — were published by the American National Standards Institute in 1988 and are widely followed in North America. Transnational EDI standards are also in place in Europe, and proposed global EDI standards published by a

UN group have been making headway. The global standards are called United Nations/EDI for Administration, Commerce, and Transport (the acronym is UN/EDIFACT).

Supplier-Customer Relations

The growing trend toward business partnering in "just-in-time" or "quick response" arrangements changes supplier-customer relations. Under these arrangements, as we have just seen, a supplier monitors the use or sales of its product and automatically restocks its customers as needed. In addition, a customer may notify not only its suppliers but their suppliers as well of planned or anticipated demands in order to minimize delays. A commonly cited example is that of J C Penney, placing an order for Gerber's disposable diapers using EDI and at the same time notifying Gerber's supplier Kimberly Clark (also electronically) to schedule the necessary quantities of wood pulp raw materials.

Information regarding specific business transactions and accountabilities may be broken into pieces residing in two or more of the organizations. An individual — or even an organization — may find it difficult or perhaps impossible to locate and pull together all of the related pieces. Information technology will provide the means to accomplish this, as systems become more closely linked and as standards evolve for identifying and associating disparate bits of information across entities.

Capital Suppliers Are Information Customers

The relationships just noted between producers and consumers and between customers and suppliers have analogs in the relationships between corporate management and the investor-creditor user of financial statements and other business reports. The investor-creditor supplies capital to the corporation, and the shareholder is the chief customer for management's report on stewardship. Not surprisingly, therefore, information technology has begun to influence corporate reporting in analogous ways. Business reporting will increasingly move toward the characteristics of mass customization in coming years.

A few organizations have distributed annual reports on video and CD-ROM, beginning a revision in the distribution of reports that is likely to lead to interactive annual reports. Although initially distributed on CD-ROM, ultimately they are likely to be "distributed" passively, by allowing stakeholders access to rich and extensive databases capable of providing not only numbers and text, but the full range of stimuli and experiences that we see today only in computer games and knowledge-based systems. Tomorrow's young financial analysts will be accustomed to information acquisition in multimedia environments, which should make interactive multimedia annual reports more likely.

If interactive multimedia becomes the norm for communications to investors and creditors, corporate information suppliers will need to be much more creative than most are today. "Creative technologists" — the kinds of people who made the movie *Jurassic Park* so lively — could be employed to invent new ways to use technology to make quarterly — or even real-time — reports and management's discussion and analysis more exciting and more convincing than the information from the competitor down the street.

The replacement of distribution (producer driven) by access (consumer driven) will be a major change. Information producers will find that allowing access to selected portions of their databases can work to their own benefit. Access will probably be limited to partial copies of live data to create a firewall, reduce the risk of unauthorized penetration, and shield competitively sensitive information. As investors, analysts, and others request more current data, relevant to their specific needs, granting access to the database may be much less costly and disruptive than responding to these requests one by one. Users can then extract the information they need and format it in the way most useful to them.

As examples of open access multiply, the expectation will develop that other corporations will make information available to all valid (and even unknown but potentially valid) users, 24 hours each day, 7 days a week. In addition, open access any time, from any place, to relevant and reliable data can be a competitive advantage in seeking capital, allowing analysts and investors evaluating the prospects of companies competing for capital to satisfy their information needs faster and easier. Already information suppliers in the capital markets see competitive value in around-the-clock availability of information — for example, mutual funds' 24-hour information services, and the many home pages that commercial entities have established on the World Wide Web. Eventually access will become the common mode of communicating corporate data to the capital markets.

Technology will enable continuous, real-time feedback from users concerning their assessment of the relevance and reliability of the information they access, and users will expect producers to address deficiencies in the quality of information provided. This feedback will be both direct (users critiquing the information they obtain) and indirect (producers monitoring which data are accessed frequently and which are not).

Relevance includes timeliness, and producers who can improve the timeliness of information will gain greater credibility within the user community. One way to improve timeliness will be to implant sensors and software agents throughout the business processes to capture information as it is created. These devices could be accessed as needed, as defined by information users and information intermediaries, such as the independent auditor.

The Virtual Organization

A virtual organization is created when two or more entities jointly act to pursue a mutual business objective. A single entity may be involved in intricate alliances with a variety of business partners, some short-term and others of longer durations. A virtual organization may be the result of entity reengineering, where spun off functions create new supply relationships. Or it may come about from a desire to pool capabilities, such as research, licenses, or technical or market knowledge. A customer-supplier relationship can approximate a virtual organization when business objectives are shared.

Information technology facilitates the development and operation of virtual organizations, and they are likely to become more frequent in the future. Peter Drucker predicted a steady movement toward every person owning his/her own business, selling services, and moving in and out of strategic alliances to respond to new opportunities (*Wall Street Journal*, March 21, 1995). The prediction applies most easily to knowledge workers and others who provide knowledge-intensive services. The new mode of business would create transient virtual organizations, linking producers and service providers from around the world to bid on new opportunities, deliver the products and services, and swiftly disband to link up with new partners in new ventures.

The virtual organization challenges some basic tenets of accounting and auditing. GAAP assumes, for example, that transactions are at arm's length, that there is a discrete entity that establishes the demand for and basis of accountability, and that enterprises have perpetual life. However, in virtual organizations, arms-length transactions could be the exception, rather than the rule. The entity concept would either apply less well or not at all. The boundaries of the legal entities might have little relevance to the economic entities. The going-concern assumption has less meaning for organizations that intend to disband when they fulfill a current contract. A virtual organization may be a shell, holding no assets and no liabilities, but bringing together the resources to respond to a one-time business opportunity. Thus, performance measurement and accountability are more difficult to achieve for virtual entities.

The virtual organization radically changes the nature of information that is useful to the information user. The historic business organization reported through a single headquarters or holding company. The virtual organization, lacking this common consolidation point, will instead have multiple sources of related (or even the same) information. Each partner in the virtual organization will be under pressure from internal and external information users to ensure that the information provided on the common venture is consistent with the other partners' information. A discrepancy in financial or operating data among the partners will cast doubt on the venture as a whole.

Even more fundamental, however, is the need for all parties to the *ad hoc* enterprise to be able to communicate freely. Open systems and a common data definition language or automated transformation will be core enabling technologies, prerequisites to participating in this mode of business.

Electronic Commerce

More business transactions will be conducted electronically, and more businesses will share data electronically to achieve mutual objectives. Many trading partners already use EDI to facilitate inventory control, production planning, and as-needed deliveries. With EDI, purchase orders, receiving documents, and invoices may be transmitted electronically between the customer and supplier.

On-line electronic commerce will become more prevalent as the consumer market moves toward electronic banking, including electronic payment for products and services. The information superhighway will allow consumers to initiate all business and personal transactions electronically.

Electronic commerce creates a variety of business and social concerns that will need to be addressed, some very urgently. As Kevin Kelly wrote, "An on-line civilization requires on-line anonymity, on-line identification, on-line authentication, on-line reputations, on-line trust holders, on-line signatures, on-line privacy, and on-line access" (*Out of Control* (Reading, Mass.: Addison-Wesley Publishing Company, 1995), page 208).

On-Line Identification, Authentication, and Signatures. A common requirement of many forms of commerce is simply knowing the party on the other side of the transaction. This requirement is met in traditional commerce through the use of paper documents with letterheads, logos, and authorizing signatures that identify a party and provide some degree of authentication. When needed, traditional commerce has permitted independent inquiry and vetting in acceptable time frames. An electronic message lacks these traditional identifiers, and the pace of business conducted electronically is unlikely to facilitate the paper-era's independent inquiry and vetting. However, where a relationship has been established, a business system providing external access can determine through an assigned user ID or password that a requester has a valid need for access and can be held responsible to some extent for his or her actions while in the provider's systems. A third party may perform the function, as is done, for example, on networks such as CompuServe where an organization can offer access to information at a price, and the network monitors access, pays the organization, and bills the user.

In situations where the authenticity of information is highly critical, such as for high value transactions, legal documents, or major business approvals, the ID and password scheme may be inadequate and inappropriate. Some vendors and special interest groups have devised schemes for digital signatures that rely on encryption techniques.

On-Line Anonymity. For legal and ethical reasons, in certain situations an individual or entity may want anonymity — for example, when investigating potential acquisition targets. If much of the investigatory information is gathered electronically, anonymity may be threatened by the IDs and passwords imposed to maintain security by screening access. Solutions based on encryption are beginning to be introduced into the marketplace.

Trustholders. Encrypted identifications enable parties deserving trust to be identified. However, this technology must be managed by third parties in order to allow the encrypted identification from being known and therefore useless for anonymity purposes in the future. For example, industry standards now in development in financial services call for Certification Agencies to issue and manage digital signatures — in effect, to warrant the authenticity of the digital signature that an entity uses to "sign" a transaction. Other parties to the transaction will expect the Certification Agency to have effective procedures to protect their digital signatures — an expectation that is likely to equate to a need for assurance.

Preventive Controls. Electronic commerce will make detective (that is, after-the-fact) controls relatively obsolete. A well established tenet of EDI applications is that traditional manual reviews of transactions, balancing, and reconciliation are inadequate if not impossible. Detective controls are useless when millions of dollars are moved to a distant country in seconds. Preventive controls imbedded in transaction processing systems are essential to management control and to reliable information. Organizations will have no choice but to rely heavily on the integrity of information processing and information systems controls.

It is likely that this challenge will give increasing importance to the "business technologist," the individual or organization who knows the business, understands how it works, knows the technology, understands the many kinds of risks that internal controls must address, and has the skills and tools to control these risks.

System requirements for electronic commerce. Users with access to information from an entity's databases will want to relate what is made available to information from other external databases. There will therefore be a growing need for standards supporting a common data definition language, or at least the means to equate data from one source to data from a multitude of other sources. Producers may need to revise their systems and to better document the meaning and use of individual data elements in order to survive in an "open systems" world.

Systems Integrity and Reliability

Organizations will have within their power mechanisms to improve the reliability of their systems. The capabilities of sensors and software agents have already been mentioned. The more frequent use of these devices will help merge the concepts of detective and preventive controls into the umbrella concept of real-time error prevention/detection.

In addition, rapidly declining costs to collect, store, and process information will allow systems to be designed with massive redundancies to insure fail-safe performance. Such designs will enable much higher levels of reliability for systems and the data they produce than are available today.

These advantages will be aided by more reliable software. Object-oriented programming employs program units ("objects") that have been extensively tested, and code generators should typically produce more reliable programs than equivalent code created for a single organization's purposes. Similarly, the greater use of purchased software systems in place of systems developed in-house will improve reliability because purchased systems are likely to be subjected to more extensive testing by end users (beta testing).

Even with these advantages, reliability may depend on the objective of the software development effort. If the objective is rapid development and low cost, reliability may have so low a priority as to negate the advantages just described. This can be the case with "throw away systems" intended at the outset to have short lives, perhaps to be completely replaced in a few months or years after they are implemented.

Organizations will face these options as their dependency on the effectiveness of the information systems grows. The requirements of electronic commerce make this clear. In addition, information technology is becoming more intimately a part of every business process, and more and more businesses will assume responsibility for their partners' significant processes and thus for significant portions of the latter's information processing. Thus system quality will become increasingly important even as software reliability improves. There will be a perceived need for information systems to function as claimed, protect confidential information, and avoid vulnerability to accidents, natural disasters, or support-system failures. (Support systems include electrical power, telecommunications links, employee transportation, and similar systems.) The enterprise dependent on such information systems and often its primary stakeholders will want assurances that all of these concerns are adequately addressed.

New Opportunities for Assurance Services

The Committee defines assurance services as independent professional services that improve the quality of information, or its context, for decision makers. "Context" includes the decision-maker's decision process and the format in which the information is presented.

It follows from this definition that new service opportunities must arise from the changing needs of decision-makers. They are the customers. Service demand develops from their needs for decision-making information and how it can be used to make decisions. Other opportunities for assurance services are implicit in needs that decision-makers may not yet have consciously perceived, but are nevertheless real. This division between opportunities driven by spoken and unspoken needs is somewhat overdrawn, however, because consumers with unarticulated needs have traditionally benefited from the articulation of the same needs by others. In either case, the focus of opportunities for new assurance services is decision-makers' information needs.

Information technology is making it possible for interested parties to supply information to decision-makers inexpensively in a competitive marketplace. That fundamental fact ensures a buyers' market in decision-making information. Producers will respond to users' information needs. The change parallels what is happening in other parts of our economy. There are exceptions to the producer-to-consumer power shift (e.g., diamonds and platinum), but it applies to a large and growing part of the economy. It is no accident that a priority on customer satisfaction has dominated so much of managerial instruction and leadership in recent years.

The decision-makers whose needs give rise to potential assurance services include the investor-creditor users who benefit from today's audit function as well as other decision-makers, including managers making decisions to achieve organizational goals. Many of the changes made to serve the needs of these decision-makers have already been mentioned in discussing the way in which information technology has affected organizations.

User-Driven Information and Access

Some information users have always had considerable power, for example, company managers, who could design whatever information systems and reports they wanted (though even here, technology is multiplying their power and expectations). However, outsiders who seek corporate information (e.g., investors, creditors, regulators, environmental activists) are often able to obtain far more information than what is published in financial reports. Organizations find it beneficial to be responsive to information users' needs when trying to attract reasonably priced financing and strategic partners and to create or protect a positive public image.

Some business purposes can be achieved only by supplying additional information. The idea is at least as old as advertising, but it has taken on new dimensions. When a purchaser allows partners in "just-in-time" or "quick-response" supply arrangements access to agreed-upon portions of the purchaser's databases in order to cut unproductive steps from the supply chain, the purchaser acts out of competitive self-interest. A second example is the use of a home page on the Internet to provide 24-hour access to information relevant to potential customers, job candidates, strategic partners, and others. We have already discussed the likelihood that organizations will see it in their interests to give their capital suppliers access to organizational databases. If such access is provided, there would be little reason not to make it available 24 hours a day, 7 days a week.

The systems that provide these types of access can easily allow two-way communication. Thus, information users can provide immediate feedback regarding the relevance and timeliness of the information provided, thereby enabling the information producer to tailor presentations to meet additional user needs. The Internet and other on-line public networks (America On-Line, CompuServe, etc.) link users in forums or "chat groups" that allow them to identify other users with similar information needs and bring their collective weight to demands for quality information and greater producer accountability for the information provided.

Needs for Additional Types of Information

Sophisticated resource providers (for example, investors, creditors, suppliers, employees, and the community) recognize that financial data are only a part of the information they need to make effective decisions. Information on various other aspects of an organization's operations is becoming increasingly important to many of the decisions they must make, as noted by the AICPA Special Committee on Financial Reporting (Jenkins Committee). In fact, for certain purposes (e.g., environmental monitoring), financial data may have very little value to the user.

The relevance and reliability of nonfinancial operating data have not historically been given as much attention as the relevance and reliability of financial information. This is changing as users in increasing numbers become more conscious of the role of nonfinancial data in their decision making. Just as some look to the balance sheet and financial projections for indications that an organization will be able to meet payment obligations and maintain required reserves, others will want current information on plant capacity, workforce stability, customer satisfaction, and other kinds of nonfinancial data. Assurances on historical financial summaries are likely to be much less important to stakeholders than assurances on real-time or even projected operating information.

As virtual organizations come to play more important roles in the worldwide economy, stakeholders will develop needs to understand those roles as well as organizational performance, responsibilities, relationships, and accountabilities. Their interests will include the consistency and completeness of information about all participants in a virtual organization, especially as participants move in and out of the virtual organization to supply unique services and resources only when and as needed. These participants may range from outsourcers providing a variety of non-core functions to full partners in a one-time, limited-life business partnership.

Besides new types of information, users will encounter new presentation designs. Multimedia presentations that users can view and query interactively have already been mentioned. However, it is well known that the medium can affect the message, that captivating presentations can distort as well as clarify, and that an intended level of enthusiasm or sobriety is harder to calibrate when powerful communications vehicles are employed. These factors can affect users' needs for assurance services.

Coping With Increased Information

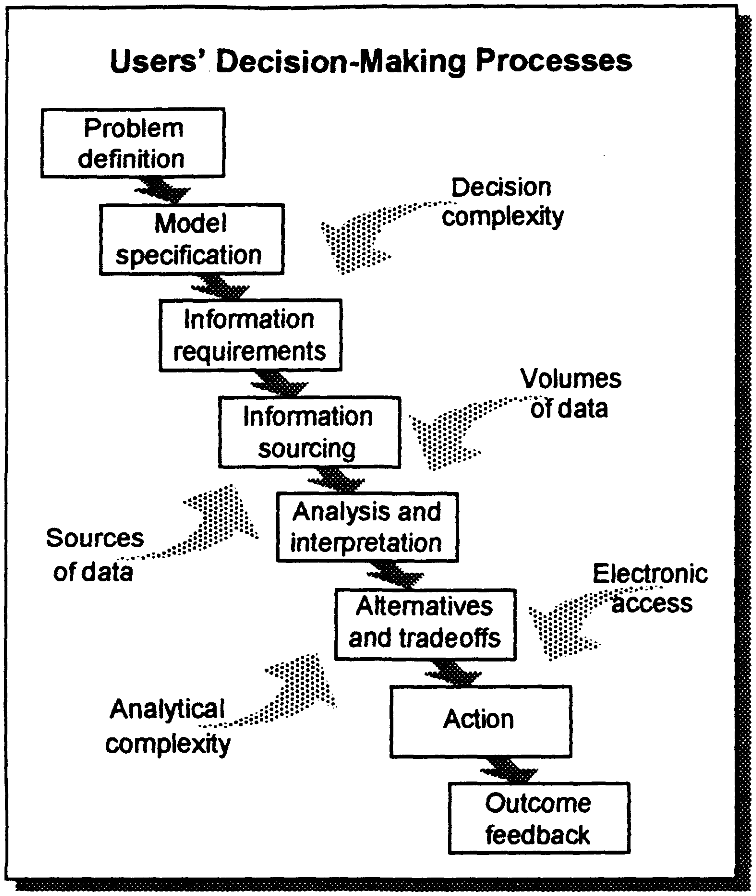
Access to greater quantities of information can be a mixed blessing. To make effective use of the information, users will have to specify their needs clearly and concisely and determine what information, from all that is available, is truly relevant. Many will rely on support from software agents and other information intermediaries (that is, any person, software agent, or entity standing between the information producer and user that adds value to the information (for example, by making it more reliable, relevant, or understandable to the user)).

Software agents will be developed to assist the user in specifying needs and will then search for the relevant information across all available sources, from corporate databases and commercial information services to on-line libraries and newswires, making appropriate analyses and recommendations. In time software agents will "learn" to interpret casual and ambiguous statements of need, will learn which sources are most fruitful (making subsequent searches more efficient), and will learn from user feedback how to make the analysis more useful. How quickly and how effectively this will happen is difficult to predict.

Highly skilled human information intermediaries will provide assistance and assurance complementary to and beyond the capabilities of software agents. These intermediaries will assist users in selecting or developing the appropriate software agents and framing the right statements of needs ("queries"). However, the role of information intermediaries will go beyond assisting decision-makers in designing queries and selecting or developing software agents. It will cover the whole series of processes that constitute decision making. The leverage a decision-maker gains from information depends on the degree to which all decision processes are effective, not just those involved in obtaining information.

Decision Processes

The full scope of users' decision-making processes is diagrammed below.



The decision-maker will need to deal with the subtleties of problem definition and decision models and to identify the appropriate sources of data, manage the volumes of data accessed, eliminate the irrelevant, assess the quality of the relevant, analyze the data, cope with decision options, and determine the needs for action on the decision and what the outcome means for subsequent decisions. Many decision-makers are likely to require assistance in ensuring that each step of this process occurs as intended — that their definition of the problem and choice of decision model are appropriate, for example, that useful data are obtained, and that their interpretation of the data is reasonable. Other decision-makers will rely on information intermediaries not just to ensure the orderly accomplishment of the decision-making processes, but to maximize their effectiveness. To meet this demand, information intermediaries will have to continually refine their skills and even the definition of the service.

Data Assurance Services

Decisions based on unreliable or irrelevant data are unlikely to be in the decision-maker's interests, if, indeed, the decision isn't merely postponed in awareness of the poor quality of the information available. The traditional attest function provides reliability assurance, but it will be changed by evolving needs for assurance on different types of information in different circumstances, particularly with respect to timing. Direct assurance on relevance is a new field, and will be discussed separately later in this section.

Users will need data assurance at points in time other than just at the end of a year or quarter. Some users may require "continuous audits" of a broad data set, others "just-in-time audits" of key transactions or data, and still others mixes of the two. When users' real-time access to databases becomes routine, they will need continuous data assurance.

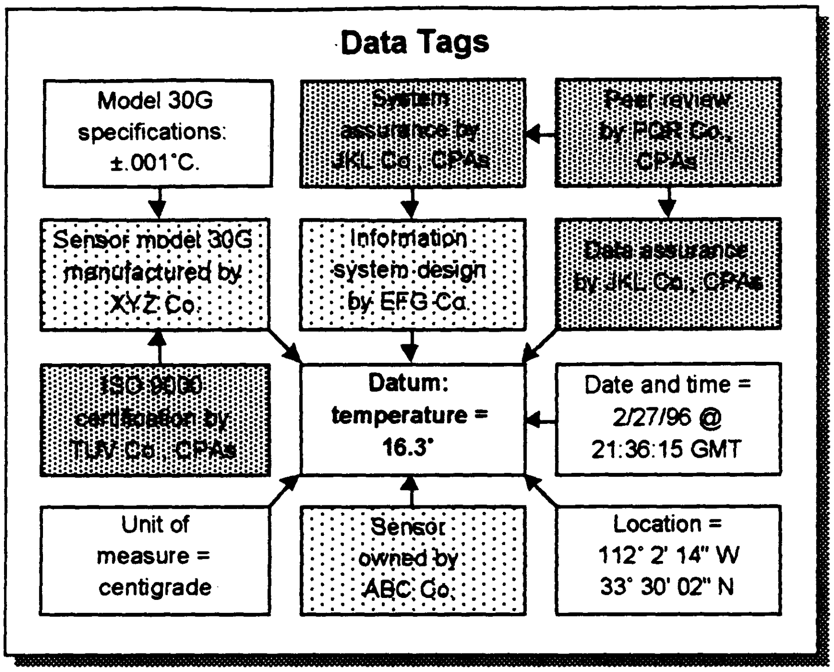
In the future, data assurance will be provided with respect to a much broader range of information. Stakeholders' needs for nonfinancial operating data were noted above. Needs for additional information types will be identified from contacts between users and preparers and eventually through electronic network feedback loops between users and preparers. Networked user groups (chat groups), which were mentioned above, will be able to identify unmet information needs common to group members. The size of the group will help determine the forcefulness of its communications to information producers. Preparers will have to respond to these new demands for information or suffer the consequences of failing to satisfy their "customers." The result will be a continual broadening of the types of data (e.g., nonfinancial, prospective, and soft information) made available to users for decision-making purposes.

Assurance regarding data reliability will gradually become tailored to individual users, and data about reliability will become an integral part of decision-making data (e.g., reports drawn from databases will include data about the reliability of the data that is the subject of the report). Information technology will enable users to communicate directly with preparers and assurers about their needs for particular levels of reliability relative to particular items of data, and the articulated levels will then guide the preparation and auditing of particular data items. Audited data included in databases or published by preparers will include "reliability tags" that will identify the level of assurance associated with each data element.

Reliability tags will differ, depending on the nature of the data:

- Countable/measurable items (historical, hard data) will be tagged in terms of precision at specified confidence levels (e.g., for the data element "Accounts Receivable — Gross (as of [date]) = $X" the tag might be: 90 percent confidence at a precision of ± $Y);
- Estimable/judgmental items (prospective, soft data) will be tagged in terms of specified ranges of reasonableness together with explicitly identified assumptions that have been tested for reasonableness (e.g., for the data element "Allowance for Doubtful Accounts (as of [date]) = $X," the tag might be: Reasonableness Range of ± $Y based on [enumerated assumptions]).

The figure below illustrates a datum with a variety of possible tags that may be interpreted by users as to explicit (darkly shaded) or implicit (lightly shaded) assurance on the datum.



Information System Assurance Services

System assurance and data assurance can be contrasted as follows:

- System assurance provides the user with assurance that a system has been designed and operated in such a way as to produce useful (that is, reliable, relevant) data;
- Data assurance provides the user with assurance that specified data are useful and may be needed to address data items that do not fall within the boundaries of a "controlled system," and hence would not be covered by system assurance.

The two may also be contrasted by the way they are produced:

- Data assurance is often produced by an after-the-fact inspection and correction strategy.
- System assurance must be produced by a thorough analysis of the possible causes of defects in the data and a system that is designed to avoid all such sources of defects — thus a before-the-fact prevention strategy.

Modern manufacturing quality assurance has moved away from an inspection-and-rework strategy and now relies heavily on a strategy of product and/or process redesign to eliminate all possible sources of defects. This proves to be both more effective (creating higher and continuously improving levels of quality) and more cost effective. Similarly, modern data quality assurance will move away from data assurance and toward system assurance.

Attestation standards on the quality of financial reporting systems currently emphasize point-in-time assurance, with the time point prior to the decision. However, users would benefit most from just-in-time, real-time, or continuous assurance. For example, the user might be able to assume that an information system is operating effectively unless some sort of warning is posted. Just-in-time assurance regarding the quality of a system would be consistent with a user's real-time access to data contained in the system. Advantages in information technology that can improve the reliability of systems will enable the assurer to provide just-in-time assurance regarding the reliability of systems. These advantages (massive redundancy, software reliability, sensors, and software agents) were discussed in the previous section.

The scope of systems assurance may be looked at from two perspectives: 1) the information contained in the system and 2) the controls that influence the reliability and relevance of the information contained in the system.

The scope of information that will be addressed by system assurance is expected to expand rapidly for the same reason that the boundaries of data assurance will expand, namely, the user's need for a broader range of information for decision-making purposes. However, as mentioned earlier, the information boundaries for systems assurance generally will be "tighter" than for data assurance because of the possibility of certain information falling outside of a "controlled system" environment.

The scope of controls that influence the reliability and relevance of the information contained in the system is also expected to broaden in response to users' needs. To date, the profession has a fairly narrow view of controls, focused on financial controls. These are just one component of COSO's framework involving financial, compliance, and operating controls. Users' future needs for decision-making information can be expected to include compliance and operating information. Systems assurance boundaries will therefore take in a wider area over time.

Systems reliability can be viewed from two perspectives:

- ***Contribution to data reliability*** — Does the system produce (contain) reliable data (i.e., does the system meet users' individual "reliability targets" for particular data elements)? (Assurance on reliability is discussed later in this section.)
- ***Contribution to electronic commerce*** — Does the system meet the broader requirements of electronic commerce (e.g., on-line identification, authentication, digital signatures, anonymity, integrity, common definitions, transaction functionality)?

The profession does not have well-defined criteria or standards against which to assess the quality of systems from either of these two perspectives. COSO's "Integrated Framework" begins to address the contribution to data reliability from a limited perspective. It assumes that all users have consistent needs and does not address the contribution to electronic commerce. In addition, there are no generally accepted measures (quantitative or other) of systems reliability that could be used to express a degree of assurance about systems reliability. A high priority for the profession during the next several years will be to take a leadership role in developing standards to assess systems reliability.

Audit/Assurance Methods

The same developments in information technology that will transform organizations and decision-makers' needs will lead to improvements in audit/assurance services. The profession has no choice but to adapt its methods to the changing audit/assurance environment. Traditional services will not be able to continue in traditional ways. However, the experimentation and development of new methods to provide traditional services will benefit the development of methods for performing new services.

Electronic sensors and software agents (some of which may be owned or controlled by the assurer) will be introduced at key checkpoints throughout the preparer's set of business activities. The auditor may provide general parameters to the software agent, such as industrial, macro-economic, and technological factors, but give the software agent discretion to add other factors or information it deems appropriate to the constantly changing model. These sensors will lead to early and automatic identification of transactions, events, and/or relationships that are unusual and therefore demand immediate consideration. Assurers will use audit software agents to search for unusual patterns and/or corroborative patterns in transactions, not only in the preparer's database, but also in the databases of those entities that are reciprocal to the preparer in transactions of audit interest.

Computerized audit programming tools will continue to evolve. Advances will include:

- Models that "learn" from procedures actually executed (e.g., the results of tests of controls reveal unexpected errors, which leads to revisions of control risk, which, in turn, leads to audit program changes).
- Models that include artificial intelligence/expert system components, which deal with specific audit judgment areas, such as loan loss reserves and inventory obsolescence.
- Models that are networked across a portfolio of audits, which allow for more complete assessments of inherent risks by industry.
- Models that represent, at a high degree of detail, the business activities of the producer and permit the assurer to create an information expectation against which to assess the reliability of information contained in the producer's database.

One approach is a producer's "information dual," which is an informational representation or model of the producer's physical and knowledge-work processes. If the "information dual" faithfully captures those processes, it can be used to assess, among other things, the reliability of the information being reported by the producer with respect to those processes. The "information dual" would provide the auditor with a highly sophisticated tool for performing an analytical review of a producer's data.

Fees paid to assurers for assurance on periodic publications produced by preparers will probably continue to be paid by the preparer. However, users may be charged different prices by preparers for information with and without assurance with the increment being remitted to the assurer.

Information technology will also enable assurers to "bill" users (directly or through an information intermediary like CompuServe) for reliability assurance that has been tailored to their particular needs. For example, in an inquiry of a database, a user could specify a "reliability target" for a particular data element by referring to a published schedule of "charges" associated with various degrees of reliability. The "reliability tag" associated with the data element could then be inspected by the database inquiry software to determine whether the user's target was met. If so, the user would be given the reliability information and charged accordingly. If not, the user would be so informed and the system would make note of an unmet reliability need, which would be passed on to the preparer and assurer. Even though the user may find out that his/her "reliability target" has not been achieved for the data element of interest, the user may still be willing to pay a smaller amount for whatever reliability assurance can be obtained rather than go without assurance altogether.

Relevance and the Role of Standards

The profession's current approach to addressing relevance questions is to develop measurement and reporting standards (e.g., GAAP and financial forecast standards) within a context of an articulated conceptual framework that purports to take user needs into account. The importance of standard-setting processes will not be diminished by developments in information technology. Indeed, as user decision-making needs for information continue to expand into new areas, standard-setting processes are expected to follow. However, from a user perspective, the current processes for standards development are deficient in two major respects:

- Standards essentially ignore individual user needs. By design, standards are meant to apply to a range of users (signaled by the product description: "general purpose" reports).
- Considerable time can elapse between an emerging user need for relevant information and a responsive standard.

The last section of this report examines more closely how the profession's standard-setting processes might be changed to adapt more quickly to users' needs.

Relevance and the Assurance Process

The information value chain begins with (undescribed) reality. Observations (human or mechanical) of this reality result in data — the initial recorded form of information. Data are filtered, analyzed, and combined with other data, resulting in information. As this process continues, information is transformed into knowledge, and finally into informed decision-making. From the perspective of a decision-maker, at each step in this distillation process, the product is more useful for decision-making. A human information intermediary makes information more useful to decision-maker's needs through the application of analysis and experience and the incorporation of additional relevant data. The CPA currently plays a limited intermediary role in the traditional financial reporting process. Developments in technology will provide new opportunities for the CPA to expand the intermediary role. In order to capitalize on these opportunities, the CPA will need to understand users' needs for data and users' decision-making activities — ultimately at the level of the individual decision-maker.

As already pointed out, developments in information technology will enable users (individuals and groups) to make known their information needs by their inquiries of databases and by their direct feedback addressed to preparers and assurers. One test for relevance therefore would be: If the user asks for data, the data are relevant.

The definition of assurance services includes improving the quality or the context of information. Relevance is a characteristic of high quality information, and context can improve relevance. Clarifying the definition of a problem, for example, adds context and affects the relevance of the data subsequently obtained to solve the problem. A large portion of what is meant by adding context is described by the concept of data about data. Data tags (see figure above) are data about data, but so are items that add relevance. For example, data about data can include what the data means in terms sufficiently precise to differentiate it from other related data items ("sales" may mean gross sales to a salesman, net sales to a CEO, and cash-flow from sales to a treasurer). In addition, data about data can include restrictions on the use of the data. However, data about data also includes articulated relationships between the data and the users' decision processes. Thus, analysis and interpretation add relevance, and the proper use of feedback helps ensure the relevance of data for similar decisions in the future. The full set of relationships between data and users' decision processes and how those relationships can be made to contribute relevance deserves attention.

Mapping Assurance Services

The table below presents a brief description of the types of assurances that might be provided to a particular user with respect to each of the decision-making processes identified in the figure on users' decision-making processes above. The table also identifies information technology developments that will influence the various types of assurances.

Several points about the content of the table should be emphasized. First, many of the "assurances" identified in the second column represent services that, in today's market, would involve adding an assurance component to present consulting services. However, the services fit the definition of assurance services and would be framed in an assurance context. Second, providers other than members of the profession are (or may become) involved in the delivery of the identified assurance services. The profession has no monopoly on any of these services and must compete with others on the basis of perceived objectivity, competence, quality, and price. Third, many of the "assurances" involve issues for which standards are unlikely to provide detailed guidance; consequently, delivery of these types of assurances will involve high degrees of professional judgment. Fourth, even though many of the decision processes identified in the table are assumed to take place within the context of a formal, well-defined computerized decision model (a rapid increase in the availability of such models is expected), considerable "expert judgment" outside of formal model boundaries will continue to be required. Finally, a key driving force that is expected to create demands for these types of assurances is that on-line information sources have the capacity to "drown the user in data ....[and] CPAs have a natural advantage in helping business decision makers navigate these seas of data."

Constraints and Barriers

The discussion to this point has shown that dramatic changes in the environment in which the attest function is now carried out will create new opportunities and challenges. Decision-makers will need new assurance services, and traditional ways of performing services will have to be transformed. Is the profession ready to adapt to these conditions and turn them to its advantage? Several constraints and barriers will affect the pace of change and the likelihood of successful outcomes.

Customer/Assurer Relationship

The major obstacle is the profession's disconnect from the customer — i.e., the decision-maker. Few industries are as disconnected from the consumer. Ask a CPA who the audited financial statements are for, and you will as likely as not get the reply, "The client, of course!"

Many of the assurance services envisioned in this report will require direct linkage and two-way communication channels between the assurer and the decision-maker. That infrastructure does not exist today.

Technology can be a facilitator in establishing a two-way communication channel between the profession and the user. Just as e-mail has made it possible for a low level clerk to voice his or her opinion directly to the chief executive, so will the end user be empowered to give assurers feedback on the products they provide. As discussed in the preceding sections, the user will take center stage. The profession must seek out users and get them into the loop before they go elsewhere for their solutions.

Table
User Decision-Modeling Process

Decision Activity	Nature of Assurance Provided	Information Technology Considerations
Overview of assurers' involvement with specific users	Extensive involvement with specific users will become the norm.	Users will need much more assistance from assurers because of: • Vast amounts of available information • Increased electronic access • Rapid degradation in value • Widespread availability/use of computer decision models.
1. Problem definition	Problems will involve a broad range of economic and social issues faced by information users/decision-makers; assurance may be given regarding the appropriateness of problem definition.	A broader range of issues may be identified/monitored through efficient/effective electronic sensors.
2. Decision model selection/specification	Specific decision models tailored to specific user needs will be the norm; assurance may be given regarding the appropriateness of the	Computer decision models used to model a broad range of economic and social decision problems will become widely available.

Decision Activity	Nature of Assurance Provided	Information Technology Considerations
	model, given the problem definition.	
3. Decision model information requirements	Information requirements will be identified in the context of the specific decision model that has been selected by the user; assurance may be given regarding relevance of proposed information.	Complexity of computer decision models may require specialized skills in determining appropriate information required to run the models.
4. Information sourcing/ finding	Users may need assistance in searching through vast quantities of information; assurance may be given regarding completeness of search.	Search processes will be influenced by: • Vast volume of available data • Increased electronic access • Development of efficient/effective software agents (perhaps controlled by assurers).
5. Information analysis/ interpretation /relevance	Users will continue to seek assistance in analysis/ interpretation from "information intermediaries," which may include assurers.	Even in contexts of formal computer decision models, users will need assistance in analysis/interpretation because: • Data may be in multimedia format, much of which will not fit neatly into formal decision models • Much data will not be "controlled" by standards enforced on preparers • Vast quantities of data will be available.
6. Evaluation of alternatives and tradeoffs	Users will continue to seek assistance in weighing alternatives and tradeoffs from "information intermediaries," which may include assurers.	Computerized decision models may do much of this, but significant judgments may be still be left to the decision-maker.
7. Implementation of actions	Users may seek greater assistance in implementation, including assurance regarding appropriateness of implementation activities.	Expertise will be needed in the design of electronic sensors to monitor implementation activities, which may be provided by assur-

Decision Activity	Nature of Assurance Provided	Information Technology Considerations
		ers.
8. Outcome feedback: • Feedback to information preparers • Feedback to assurers	Users will provide increasing feedback directly to preparers because of extensive user-producer linkages and to assurers because of greater assurer involvement in user decision-making activities.	Emergence/proliferation of user "chat groups" will enhance communication links among users and between users, preparers, and assurers.

Permissions

To what extent can CPAs get marketplace "permission" from the consumers and other involved parties to provide new assurance services? The consumer may not perceive CPAs as the best source for the given service. The Jenkins Committee found that financial analysts were reluctant to have CPAs attest to the content of Management's Discussion and Analysis. They feared that the auditor's involvement might impede or sterilize the flow of information from management.

This paper suggests several services that CPAs may be able to provide, including an expanded role as information intermediary. The profession's traditional service is to audit or attest to information. Becoming more of an information intermediary may create the risk of a perceived or real conflict of interest.

Who Will Pay the Bill?

If there is sufficient consumer demand for assurance services, the bills for those services will be paid. In two-party relationships, the payer always will be the consumer. In three-party services, it will be either the end user of the service or the remaining party (e.g., the corporate preparer), who has an interest in the end users' decision-making comfort level. (Regardless of who pays, from an economic perspective, beneficiaries generally bear the costs. In most transactions, the benefits are shared and the transaction costs effectively split between the two parties. For example, in the case of assurance on financial statements, the investor benefits from lower risk and the company benefits from lower cost of capital.)

The key is to develop services that effectively meet decision-makers' needs. Pricing and payment will emerge from the perception of value received by the customer and marketplace convenience. It will be no easy task to devise new services that effectively meet decision-makers' changing needs, but it must be done.

Competencies

The market-accepted scope of the profession's work today is very narrow. It includes audits and closely related attestation services, and it presumes a service environment that is far less transformed by information technology than will be the case in coming years. The profession's information-technology competencies will have to broaden and deepen even to provide traditional services let alone to provide new assurance services.

Real-time auditing, for example, will require a far better understanding of systems and systems reliability. And auditors will need to be able to provide assurance on non-financial, operating data — production volumes, raw materials contracts, reject and scrap rates, statistical quality levels, and market projections, for example. All of these will have information technology ingredients, and many will need the expertise of non-accounting professionals, such as actuaries and engineers.

If the profession is going to deliver expanded information intermediary services, it will need to enhance its critical thinking skills to manage, correlate, and analyze data from a multitude of information technology sources. CPAs will need a new level of expertise in computerized systems, decision models and how to relate them to users' needs, data access methods, feedback loops, and implementation methods. These skill sets are weak in the profession today, and colleges and universities need to improve training to achieve these knowledge and skill levels.

Capital Needs

The technological infrastructure needed to provide assurance services in the information-intensive future will require significant development and continuing maintenance. Heavy capital investment will be required to provide traditional services and to develop the tools and prepare personnel to perform new assurance services. Information technology costs will mount for hardware and networks, operation centers, software development, and, perhaps, joint ventures and alliances.

The profession has traditionally been a thinly capitalized industry. Potential competitors, on the other hand, include capital-rich industries — from financial institutions to systems houses. This makes CPA-non-CPA alliances more likely.

Rules and Regulations

The profession defines itself in large part by its standards. The standards guide behavior, define the types of services CPAs can provide, and set out how to provide them. However, the standard-setting process is slow and deliberate. Despite the need to be responsive to customers' needs, standardsetters are generally reactive. With the exception of the Jenkins Committee, there has been little proactive effort to identify users' needs. And there has been no effort to create a quick delivery system for standards.

Yet technology could make many auditing standards obsolete. Competitors could step in and establish a rival set of standards, undermining the current franchise in financial-statement auditing. Many potential assurance services — types of system assurance, for example — will require standards, and competitors' standards produced in advance of the profession's could give them an enormous advantage, perhaps allowing them to absorb whole emerging markets.

Although the profession needs standards that allow services to diverse groups of customers, that will not be enough. Decision-makers differ, and their needs for new services are unlikely to be consistently satisfied by one-size-fits-all approaches. Standards will have to be developed that permit customized services to fill individual needs.

Competition

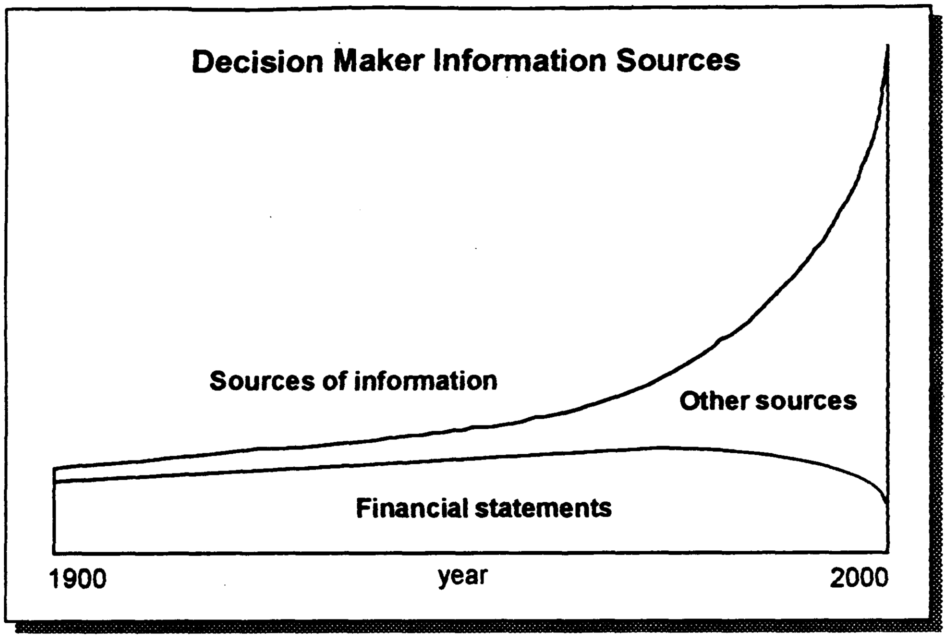
Software that replaces tasks performed by assurers is a threat to their livelihood. When a client's system produces more reliable data because of information technology, the work needed to assure reliability is reduced. And when audit software embeds experience and expertise, competitors can obtain it and use it to make inroads on CPAs' audit market share. Banks could one day audit their creditors, and computerized internal audit functions could reduce the work needed for an audit opinion.

New assurance services will be subject to potential competition of another sort. Competitors with information-technology skills and track records of achievement could compete for newly developed service niches. Unlike audit work, there will be no protected franchise. Moreover, needs for capital investment could favor competitors.

As noted in the previous section's table, computerized decision models applicable to a broad range of economic and social decisions will become widely available. Whoever owns the rights to these tools may have first rights to the related assurance service.

Taking Steps Toward the Future

This report has described the profound changes occurring in information technology and their probable effects on decision making. Other things left equal, the changes will continue to diminish the role of audited financial statements in business decision making. The figure below depicts the relative decline in the profession's product relative to other decision-making information sources.



In these conditions, practitioners and firms will have to evolve rapidly, even radically, to preserve their economic value. Those whose careers or expectations for unfunded retirement payments extend beyond five to seven years should be most concerned. But all should realize that the changes required are within the profession's reach, largely because it has advantages over most potential competitors. CPAs continue to be rated as the most trusted outside advisors by business owners, investors, and other consumers of professional services. They are recognized for their independence, financial skills, and integrity and are granted a level of access to business decision-makers unmatched by other professional groups. The question is how to respond to the challenge, not whether the profession is capable of responding.

A Balanced Initial Response

The six steps set out below, together with the proposed strategic pilot program, are necessary but not the whole response needed. Most would proceed at an evolutionary pace for two reasons. First, there is a margin of timing error in the projections in this report and in their effects on practitioners. Second, there are risks in going to the marketplace too soon even with well-conceived offerings. The objective should therefore be to allocate resources effectively according to strategies designed to ensure that practitioners arrive in the right technological place at the right time. The right time is not a specific point in time, but the duration of a phase of technological evolution. This is consistent with the timing of the trends and innovations identified in this report.

*1. **Education and Communication.*** The AICPA should increase members' awareness of the implications of technology for present and future CPA services. It is important to instill a sense of urgency regarding the need to expand information-technology competencies.

As part of the program, the AICPA should position itself as a leader in delivering services using new, but widely accepted, technologies. These services include CPE, member services, and committee operations. Ultimately, CPA services must meet the needs of individual end-users. It is therefore important for the AICPA itself to create an infrastructure to receive direct input from the consuming public. One way to do this would be to establish an AICPA site on the World Wide Web to enable a two-way interchange between the AICPA and its publics.

AICPA staff should develop competence to provide technological assistance to Institute members and committee members.

This proposal will further the process of turning the profession toward the technical competencies required to maintain its primacy in assurance services in an information-intensive environment. The AICPA's leadership has indicated that it understands the importance of information technology to the profession's future, and it has taken steps, but, given the dimensions of the task, the heavy work of full adaptation lies ahead.

2. ***Near-Term Strategies for Members and Their Firms.*** AICPA members have already begun to integrate technology into their own practices — for example, spreadsheets, word-processing, tax return preparation, and local area networks. Some firms, or members, already subscribe to an Internet provider or another on-line service. Those who are not yet using these applications should begin to become familiar with them and integrate them into their practices.

The next phase of integration for most CPA firms is to become wired to their clients and their clients' other service providers, such as law firms and banks. Interaction with clients and influential parties should be expanded to cover more than just e-mail. Clients might be allowed to participate in bulletin boards on the CPA's LAN, access firm newsletters electronically, and enter dialogue with the CPA firm on issues such as tax law and other legislation that affects the clients' business.

More and more CPAs will find that their clients have adopted new technologies. Some are heavily involved in EDI. Others use the Internet to carry out portions of their businesses. But still others may be barely computer literate. In any of these situations CPAs must have a working knowledge of the effect of information technology to be of continuing value to their clients.

3. ***Standards Development.*** The AICPA has demonstrated on many occasions that its standards can become the standards of professions with many non-CPA members. Yet the AICPA is only beginning to embrace the challenge of establishing standards for assurance activities related primarily to electronic evidence. A white paper developed by the AICPA Information Technology Research Subcommittee recommends the issuance of a Statement on Auditing Standards defining requirements for the use of electronic evidence. Control environments specific to EDI installation, the integrity of public and private electronic databases, and the relevance and reliability of electronic financial and nonfinancial information are rapidly becoming material to traditional CPA attest services. In the near future, they will become the subjects of assurance services themselves.

Since electronic technologies are increasingly a part of virtually all financial transactions, technical committees should have a full complement of information technology competencies.

The rapid growth of electronic transactions and data collection, storage, and transmission may already be affecting the relevance of existing AICPA standards and guidelines. In light of these technologies a substantial number of AICPA publications may require modification or replacement. The Institute must begin this process immediately in order to assure that its own guidelines and standards are relevant to the present commercial environment.

4. Improved Standard-Setting Procedures. The AICPA must speed up the process of defining standards and guidelines for dealing with electronic evidence in attest engagements and providing assurance on other financial and nonfinancial electronic information. Its standard-setting process is too sluggish to accommodate the rate of change in the financial markets.

Other organizations will compete with CPAs to perform these kinds of services. The AICPA has an opportunity, but it must act quickly if it is to become the standard bearer for new assurance services.

While this report is not intended to serve as a redesign vehicle, the kinds of changes that should be considered include task forces charged to deliver by a target date and given the resources to achieve the target.

The exposure draft and comment process can be made more efficient by publishing exposure drafts on the Accountants Forum or World Wide Web and collecting input via bulletin boards, electronic town meetings, and on-line dialogues between the standard setters and those who wish to comment upon or ask questions about a proposed standard.

The AICPA should proactively seek input from practitioners' customers. The CompuServe Accountants Forum and AICPA Online are an excellent vehicles for this. Through them the AICPA could involve users in identifying emerging issues related to new service opportunities and the need for new standards. Standards are far more likely to be effective if they are based on customers' needs.

5. Legislative and Regulatory Monitoring. The rapid growth of electronic commerce in all of its manifestations — on-line networks, electronic merchandising, the use of electronic money, and other information technologies — will inevitably result in abuses. These in turn will prompt attempts to regulate content, content providers, carriers, and other participants in the process. Many of the regulations and safeguards can or will involve a watchdog or assurance requirement. The AICPA should be prepared to monitor and influence these events in the interests of practitioners who provide assurance services.

The AICPA is well equipped to monitor and influence legislation affecting traditional audit and tax compliance services, but not to monitor opportunities and threats to nontraditional services. The Institute should rely on individuals with strong competencies in information technologies as they relate to assurance services.

*6. **Trends Monitoring.*** The growing influence of electronic information and technologies suggests a growing need for the AICPA to monitor trends. Perhaps this role can be assumed by the existing technology committee(s). However, the breadth and depth of trends might be more than one committee can master. The AICPA should therefore evaluate its trends-monitoring processes in light of the full range of information technologies and influences. Their potential effects on traditional and future assurance services are so pervasive that the evaluation deserves care and a high priority. Monitoring trends will assist the Institute in directing its programs of education, member communications, legislative monitoring, and standards development.

Strategic Pilot Programs

The AICPA will have to innovate aggressively but with balance and adequate forethought. A "Great Leap Forward" program would put the AICPA at risk for its potential failure to "leap" in the right direction. Instead the AICPA should select one or two pilot programs for the development of standards that will place the CPA stamp on new assurance services. The measurement standards called for by the services the Committee recommends can serve as pilot programs.

Of course there is risk associated with any attempt to establish standards in markets that are still in their formative stages. But there are also major gains to be realized from positioning the AICPA and the profession at the leading edge of the new electronic marketplace. The Institute has little to lose and much to gain from piloting accelerated standard-setting programs, just as it has little to lose and more to gain in pursuing the recommendations above for AICPA action.

The Profession's Current Competencies

The Committee's Approach

The Committee leveraged the substantial work CPA firms have already done to identify the competencies of their staffs. It asked national firms to share their written materials on competencies, and it invited their human resources experts to discuss competencies.

Four firms provided written materials, and six sent human resources experts for discussions. Though the firms differed in the degree of detail they provided about their staffs' competencies, they generally were consistent with each other.

The Committee also took advantage of a study performed jointly by the accounting professions in Australia and New Zealand. Auditing practices in the U.S. and Australia/New Zealand are sufficiently similar to warrant using the Australia-New Zealand study as a surrogate measure of the competencies of U.S. auditors, and the breadth of the study offset any potential differences between the findings already in hand from the national firms and the characteristics of smaller firms.

As it turned out, the discussion of competencies in the Australia-New Zealand study was consistent with what individual firms in the U.S. said about competencies and contained added insights because the study addressed compliance and performance auditing, as well as financial statement auditing.

For purposes of this section, *competencies* includes both what individual auditors know and what individual auditors and audit teams do. Competencies are evidenced by auditors applying their skills in the delivery of services to clients or supporting the delivery of those services.

Identifying Competencies

The following 19 competencies were found relevant to the provision of assurance services today:

1. Accounting and auditing standards
2. Administrative capability
3. Analytical skills
4. Business advisory skills
5. Business knowledge
6. Capacity for work
7. Comprehension of clients' business processes
8. Communication skills

9. Efficiency
10. Intellectual capability
11. Learning and rejuvenation
12. Managing audit risk
13. Marketing and selling
14. Model building
15. People development
16. Relationship management
17. Responsiveness and timeliness
18. Technology
19. Verification

Eighteen of the competencies were noted in the materials from the firms and in the Australia-New Zealand study. The nineteenth — verification — was derived from discussions with human resources professionals.

The appendix to this section explains each of the competencies by defining the competency, describing specific tasks and skills that comprise it, or both. The definitions and component skills are primarily compilations of information from the materials provided by the firms or from the Australia-New Zealand study. As a result, there is some variation in the format and extent of the descriptions of the competencies. Also, because it was often difficult to clearly delineate where one competency ends and another begins, some component skills are listed beneath more than one competency.

Categorizing Competencies

The Committee divided the competencies it identified into "high opportunity" competencies and "low opportunity" competencies (see box). High opportunity competencies have a high likelihood of being building blocks for selling or delivering new assurance services. Low opportunity competencies, while important to the delivery of current assurance services, are less likely to be exploited in the development of future services.

Judgments about the relative opportunities available for each competency were based on the Committee's findings from customer needs interviews and from studying the future audit/assurance environment. The fit between the identified competencies and the findings on customer needs indicated which competencies were "high opportunity" competencies. They appeared relevant to providing services that fulfill those needs, while low opportunity competencies were judged less relevant to meet those needs. The customer needs included assessing quality of a company's management, internal systems, and products; providing better information about risk; developing forecasts and forecasting systems; comparing a company to its industry; comparing results to strategic plans; navigating information; reducing the cost of data gathering and analysis; improving timeliness of data; creating new scorecards; auditing performance/outcome information; improving decision models/analysis; providing information for cost reduction information; and overseeing contractors.

The fit between current competencies and findings from customer needs interviews is helpful, but not definitive, for the profession's immediate future. The profession must also adapt its competencies to the additional demands new services present as they are brought on stream in the coming years. The number of high opportunity competencies should make that challenge more tractable.

Classification of Competencies

High Opportunity Competencies
Analytical skills
Business advisory skills
Business knowledge
Capacity for work
Comprehension of clients' business processes
Communication skills
Efficiency
Intellectual capability
Learning and rejuvenation
Marketing and selling
Model building
People development
Relationship management
Responsiveness and timeliness
Technology
Verification

Low Opportunity Competencies
Accounting and auditing standards
Administrative capability
Managing audit risk

Appendix

Description of Individual Competencies

Accounting and auditing standards: Understanding of accounting and auditing literature; familiarity with current technical developments; performing thorough and accurate technical research.

Administrative capability: Performing administrative responsibilities based on an understanding of practice economics, financial management, staffing and development, and other administrative matters; managing the elements of cost, revenue, and profit to maximize the financial return on the engagement.

Analytical skills: Include the following tasks and component skills:
- Research skills (finding and assessing data).
- Analyzing commercial and financial data.
- Systems analysis and review.
- Using sophisticated analytic models in support of audit judgment.
- Using industry specific data bases in the audit.
- Using extra-organizational information in the audit.
- Organizational analysis of functions (e.g., financing, marketing, production) and of structures.
- Seeing anomalies and recognizing their implications.
- Knowing what should be there and sensing what is not there.

Business advisory skills: Helping clients think through the implications of critical business issues, create innovative ideas, decide the action steps, and implement those steps; includes the following tasks component skills:
- Applying technical knowledge to provide insightful recommendations to clients regarding the accounting for and the business and economic aspects of contemplated transactions.
- Applying the level of synthesis and type of knowledge required to generate sound solutions to client issues.
- Proactively providing recommendations that have an impact on the client's business across a broad range of issues.
- Taking the intellectual risk necessary to present creative business ideas that help clients achieve their objectives.

Business knowledge: Broad base of knowledge concerning macro environmental, economic, and industry issues business-process structures, functions, and practices; the implications of these matters — including the inherent opportunities and risks — to clients' businesses. Includes understanding how organizational design and incentive systems affect organizational performance and attainment of goals. Includes knowledge of best practices, business analysis, control practices.

Capacity for work: Demonstrates a strong work ethic; responds well to pressure.

Comprehension of clients' business processes: Understanding how business processes affect clients' businesses throughout the value-creating chain of their industries; how processes link clients' people, critical business activities, and goals; and how they can be continuously improved. Includes understanding of how clients run their businesses and create value, who their customers are and what they want, who their competitors are and the key competitive risks they present, what the client's business strategy is, and the information needed to implement that strategy.

Communication skills: Expresses thoughts clearly and succinctly, both orally and writing; skillfully tailors communications for different audiences; listens well and effectively; contributes to discussions; makes technical points understandable; demonstrates ability to negotiate effectively; displays ability to think on his/her feet; includes the following component skills:
- Using collaborative approaches to establish and build support for objectives.
- Conveying ideas and information, leading discussions, and harnessing the group's potential to make decisions and generate solutions.
- Explaining procedures or recommendations firmly, clearly, and succinctly to inspire client's confidence.

Efficiency: Demonstrates strong organizational skills; manages time well; leverages staff well; uses technology to improve efficiency.

Intellectual capability: Includes the following component skills:
- Challenges conventional thinking: Pushes the boundaries of conventional thinking, resulting in innovations or breakthroughs in client's business, client service or engagement economics, and management.
- Conceptual thinking: Identifies the key aspects of complex situations and understanding the big picture.
- Diagnostic thinking: Recognizes patterns in observation of information and draws appropriate conclusions.
- Evaluative thinking: Thoroughly considers alternatives, weighs options, and assesses risks.
- Forward thinking: Foresees and takes action to deal with future events, problems, and opportunities.
- Imagination: Develops creative solutions and new ways of thinking about situations, problems, and opportunities.

- Information seeking: Gathers current information about situations and gets the facts and data before making decisions. Discerns what services/skills are needed to resolve issues.
- Systematic thinking: Takes a well ordered and logical approach to analyzing problems, organizing work, and planning actions.

Learning and rejuvenation: Creating mechanisms to learn from the environment, clients, competitors, and work performed; and through this learning, continuously improve services, client relationships, and internal processes; includes self-awareness and development, accurately assessing one's capabilities and limitations in order to improve effectiveness, and then taking proactive steps to develop.

Managing audit risk: Understanding and applying risk management knowledge and techniques in accepting and performing assurance engagements; differs from understanding client business risks, which is encompassed in business knowledge.

Marketing and selling: Includes the following component skills:
- Having credentials as an expert resource in a relevant industry/marketplace.
- Developing proposals.
- Expanding value-added services to existing clients.
- Asking open-ended questions to learn about client's business issues and needs.
- Developing a network of contacts and relationships, and using these as sources of information, support, or business development.
- Making initial contact and qualifying client interest.
- Closing sales.

Model building: The ability to identify and implement methods for quantifying enterprise activities; includes the following component skills and activities:
- Reviewing the outcomes of measurement projects — in the light of best practice, targeted improvements, present activity levels, and validity/reliability.
- Monitoring the currency of measures in terms of practicality, use, and reliability.
- Establishing with clients/colleagues the need for measures to guide organizational or audit processes.
- Instituting and setting parameters for measurement processes within the client organization or audit firm.
- Critically reviewing proposed measures in terms of the processes used in their development, their value/acceptability to users, and the status they might attain.
- Negotiating understanding of defined measurements, with clients or within senior levels of the audit firm.
- Developing methodologies and databases for establishing performance criteria and measuring performance.

People development: Attracting, developing, motivating, and retaining high quality human resources; component skills include:

- Developing performance plans, providing coaching and feedback; partnering with staff to help build their performance.
- Enhancing the productivity of the team and individual's capabilities by prudently, yet aggressively, allocating work to those capable of high quality results.
- Understanding the feelings, attitudes, concerns, and characteristics of others.
- Using appropriate techniques to interview and select new hires.
- Projecting a positive role mode for subordinates and peers.
- Creating an environment to sustain highly motivated groups working to achieve common objectives.
- Conveying knowledge and skill in ways which actively involve the learner and build capability.

Relationship management: The ability to create and maintain objective relationships founded on trust; component tasks and skills include the following:

- Understanding clients' needs, goals, and strategies; the industries in which they operate; the competitive pressures they face; and their markets.
- Measuring performance for clients to ensure they receive value from the work performed.
- Leveraging strong relationships through coordination and frequent contacts with decision makers, both financial and nonfinancial, at appropriate levels and locations.
- Establishing and maintaining credibility with and the trust of key decision makers at appropriate levels, so that judgments and inputs are sought, valued, and respected.
- Thoroughly understanding issues and considering alternatives, weighing options, and assessing risks. Informing clients of issues, conflicts, problems, and opposition which might impede progress.

Responsiveness and timeliness: Available when needed; willing to give clients first priority; meets deadlines.

Technology: Technology competencies employed in current assurance services include the following:

- Using information technology: audit software, database systems, spreadsheets.
- Applying auditing technologies and procedures.
- Mastering new information technologies.
- Developing audit technologies for reducing audit risk.
- Adapting audit methodologies for evaluating controls in computer systems.
- Designing new audit technologies for systems analysis and evaluation.
- Developing audit technologies for assessing business risk.

Verification: The ability to identify and implement methods to attest to compliance with specified standards or criteria; component skills include:

- Disaggregating summarized information into components.
- Developing audit objectives for each of those components.
- Designing and performing procedures to obtain sufficient, competent evidence relevant to each of the audit objectives.
- Evaluating the evidence resulting from the performance of audit procedures to conclude on compliance with criteria.

Competencies for the Future

The Special Committee on Assurance Services has identified numerous opportunities for assurance services that the profession may pursue now and in the near future. The new assurance services will require an expanded set of competencies that the profession needs to begin building today. Individuals, firms, academics, and professional organizations need to carefully evaluate the gap that exists between current competencies and those that will be needed as the profession moves into new assurance services. Ultimately, the profession's ability to close the gap will depend on the individual practitioner's willingness to make a commitment to an aggressive program of life-long learning.

Purpose

The Committee identified 19 competencies relevant to the provision of assurance services today (see Composite Profile of Capabilities Needed by Accounting Graduates and The Profession's Current Competencies). This section analyzes new competencies required during the next ten years, not only to fulfill the needs of an evolving audit/attest function, but also to meet the requirements of various new assurance service opportunities identified by the Committee.

The section begins by considering a general set of competencies that will be needed during the next decade that are responsive to the rapidly changing environment. The section then turns to additional competencies that will be required in order to pursue specific new assurance service opportunities. Finally, the section describes an action plan by which practitioners may increase their competencies in specified areas.

General Competency Requirements

In response to a confluence of developments in the economic, social, political, legal, and technology environments, assurers will need to improve and/or add numerous competencies during the next ten years. In particular, five major imperatives stand out:

- ***Customer focus.*** Assurance services are intended to benefit decision makers by improving the information used in their decision processes (note that the Committee's definition of assurance services explicitly recognizes the decision maker as the focal point of such services; see Assurance Services — Definition and Interpretive Commentary). A customer focus means that the assurer needs to gain a stronger understanding of user decision processes and how information should enter into those processes. (See also Customer focus.)

- ***Migration to higher value-added information activities.*** To provide more value to clients, decision makers, and others, assurers need to focus less on activities involved in the conversion of business events into information (e.g., collecting, classifying, and summarizing activities) and more on activities involved in the transformation of information into knowledge (e.g., analyzing, interpreting, and evaluating activities) that effectively drives decision processes.

- ***Information technology.*** Assurance services deal in information. Hence, the profound changes occurring in information technology will shape virtually all aspects of assurance services. As information specialists, assurers need to embrace information technology in all of its complex dimensions. (See also Effect of Information Technology on Assurance Services.)

- ***Pace of change and complexity.*** Assurance services will take place in an environment of rapid change and increasing complexity. Assurers need to invest heavily in life-long learning in order to maintain up-to-date knowledge and skills.

- ***Competition.*** Growth in new assurance services will depend less on franchise/regulation and more on market forces. Assurers need to develop their marketing skills — the ability to see clients' latent information and assurance needs and rapidly design and deploy cost-effective services to meet those needs — in order to effectively compete for market-driven assurance services. (See also Competitive Environment.)

These five imperatives immediately translate into increasing emphasis on the following competencies (see Table of Required Competencies):

- ***Customer focus.*** Adoption of a customer focus places a premium on the following competencies:
  - Understanding user needs.
  - Communication skills.
  - Relationship management.
  - Responsiveness and timeliness.

- ***Migration to higher value-added information activities.*** A greater focus on the analysis, interpretation, and evaluation of information that enters into decision processes means that assurers need to become more knowledgeable in user decision processes and various relevance enhancement activities associated with those processes, which requires greater competencies in the following:
  - Analytical skills.
  - Business advisory skills.
  - Business knowledge.
  - Model building (including sensitivity analysis).
  - Understanding client's business processes.

- Measurement theory.[1]

- ***Information technology (IT).*** Embracing IT means understanding how it is transforming all aspects of business. It also means learning how to effectively use new developments in hardware, software, communications, memory, encryption, etc., in everything CPAs do as information specialists, not only in dealing with clients, but also in dealing with each other as individuals, teams, firms, state societies, and national professional organizations. To fully embrace IT, the assurer needs to go beyond the competency entitled "Technology" shown in Section I of Table of Required Competencies and begin to build skills listed in Section II of that table (i.e., knowledge of risks of electronic commerce, detailed knowledge of IT, knowledge of preventive controls, and knowledge of security and integrity criteria).[2]

- ***Pace of change and complexity.*** An increased emphasis on life-long learning[3] translates into increased competencies in the following areas:
  - Intellectual capability.
  - Learning and rejuvenation.

- ***Competition.*** To effectively compete in the delivery of market-driven assurance services, assurers need increased competencies in the following areas:
  - Marketing and selling:
    - Understanding customer needs.
    - Designing and deploying effective solutions.

Specific Competency Requirements for New Assurance Services

The Committee has developed six new assurance services that are identified in columns of the Table of Required Competencies, namely:

- Electronic Commerce.
- Health Care Performance Measurement.
- Risk Assessment.
- Business Performance Measurement.
- Information Systems Reliability.
- ElderCare Plus.

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[1] Measurement theory deals with issues involving development of operational definitions of concepts, design of appropriate measurement techniques, and ways to assess reliability of measurements. Such knowledge is a vital component of model building and other elements of decision processes.
[2] For a comprehensive statement of IT competency requirements needed by professional accountants, see: "Information Technology in the Accounting Curriculum — Guideline #11," *International Federation of Accountants, 1995.*
[3] See: Stark, Joan S., et al., " Intentional Learning: A Process for Learning to Learn in the Accounting Curriculum," *Accounting Education Change Commission,* 1995.

In addition, the Committee has developed a set of assurance service templates that briefly outline seven additional assurance service opportunities that practitioners may wish to consider.

Specific competency requirements for each of the six services are identified in the Table of Required Competencies and briefly described in the following paragraphs. Brief comments are made at the end of this section about the competency requirements of the "template" services.

Electronic Commerce. Specific competencies required to engage in electronic commerce assurance services involve gaining an in-depth understanding of the risks of electronic commerce (intentional attacks, transmission failures, lack of authentication, loss of trust, theft of identity, etc.). Assurers will also need to gain knowledge of IT developments involved in electronic commerce, including encryption, electronic cash, etc., and will need to understand automated techniques for delivering assurance (software agents, sensors, and other IT based tools). Also, as criteria are developed for the integrity and security of electronic commerce systems, CPAs will have to master them. Finally, increased knowledge will be needed regarding preventive controls and how systems can be designed with built-in reliability.

Note that the Table of Required Competencies indicates that increased knowledge of risks of electronic commerce and more detailed knowledge of IT developments involving electronic commerce represent competencies that also will be needed in delivering other types of assurance services, including audits/attestations, risk assessment, performance measures, and information systems reliability.

Health Care Performance Measurements. The most critical need for assurers who intend to engage in assurance services involving the quality of health care is to understand the relationship between medical services and outcomes. Assurers need to understand the health care delivery system, the medical services provided, and quality attributes associated with those services.

Risk Assessment. Assurance on risk assessments identifies a set of risks that is much more comprehensive than those presently addressed in audits. Accordingly, a major competency requirement for delivering this assurance is gaining an understanding of a comprehensive set of risks that affect organizations. Further, risk assessments are closely linked to an organization's mission, vision, objectives, and strategies, and knowledge of these business planning activities and outputs is also needed. Finally, risk assessment often involves the assurer in the development of new, more relevant measures, which means that competencies involving relevance enhancement activities are needed, including (a) knowledge of measurement theory and skills in defining and constructing measures, (b) understanding of "data about data" (e.g., reliability information about data) and limitations in data used to develop those measures, and (c) use of sensitivity analysis to evaluate risk assessment alternatives.

Business Performance Measurements. Performance measures are derived from an organization's mission, vision, objectives, and strategies, which means that greater understanding of these elements is needed by practitioners who wish to provide assurance on performance measures. As indicated above, risk and performance are closely related; hence, practitioners will also need to have a knowledge of risks that can defeat the achievement of objectives (i.e., result in unfavorable performance). Finally, practitioners will need to have competencies in the same "relevance enhancement" activities outlined above under "Risk Assessment."

Information Systems Reliability. Assurance on information systems reliability is not restricted only to systems for financial reporting, but also deals with an all-encompassing set of non-financial information involving all aspects of an entity's value-chain activities (purchasing, inbound logistics, production, marketing, outbound logistics, after-sale services, etc.). This assurance service assumes that the information contained in those nonfinancial systems is relevant for decision making purposes; accordingly, the service focuses on issues involving the reliability of information. The ultimate goal of this assurance service is to be able to provide real time assurance on the content of data bases. With this goal in mind, a major competency issue involves developing an understanding of preventive controls and how systems reliability may be accomplished by design rather than by error detection and correction. Other competencies needed to effectively deliver this service include greater understanding of electronic commerce issues described earlier. In addition, since this assurance service deals with the reliability of a broad range of nonfinancial information, the practitioner will need to have an understanding of the nature of these non-financial measurements and "data about the data."

ElderCare Plus. This assurance service focuses on the needs of the elderly and whether care givers are providing services that meet specified objectives. Accordingly, required competencies involve knowledge of the physical and psychological needs of the elderly and knowledge of the range of services provided by care givers and quality attributes of those services. In addition, knowledge is required of the unique legal considerations that come into play in elder care.

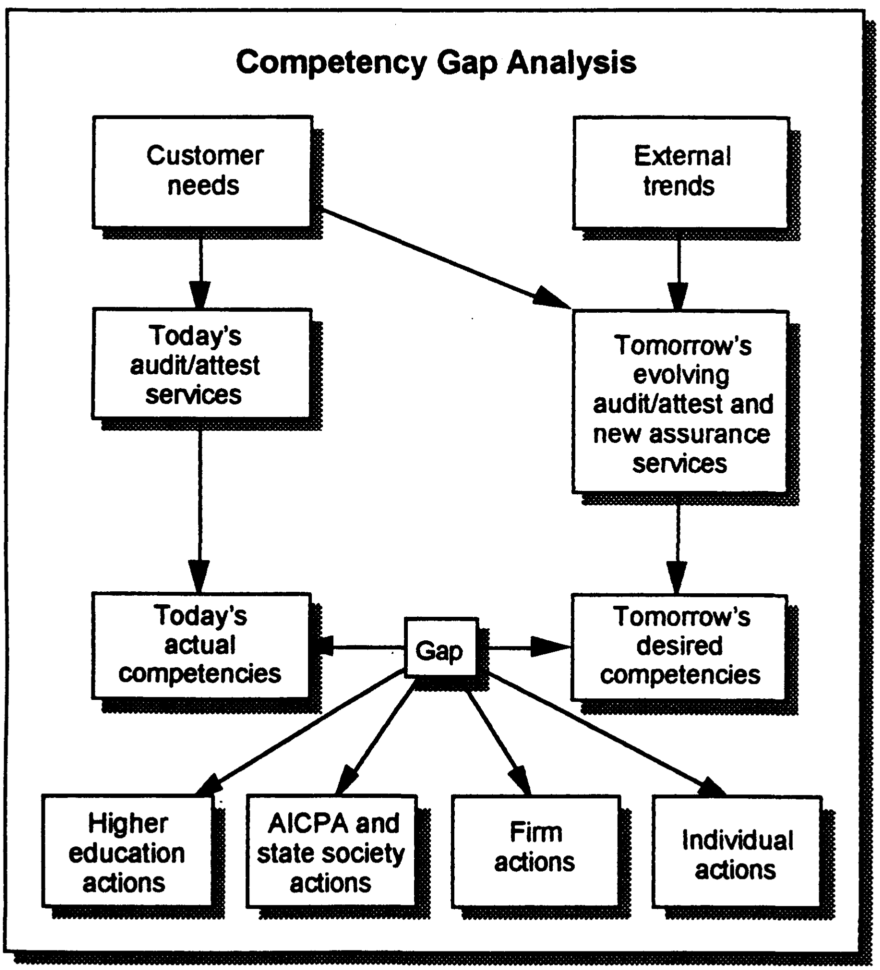
Templates for Additional Assurance Services. The Committee has developed brief templates for the following additional assurance service opportunities — special competency requirements are noted after each service:

- **AIMR compliance** — knowledge of AIMR standards.
- **Policy compliance** — subject matter knowledge in the domain of the policies.
- **Outsourced internal auditing** — subject matter, as necessary.
- **Trading partner accountability** — subject matter, as necessary.

- **Mergers and acquisitions** — understanding of valuation and strategic issues.
- **ISO 9000 certification** — understanding of ISO standards and quality management.
- **World wide web assertions** — understanding of the subject matter involved in the assertions and Internet security and reliability.

Action Plan for Enhancing Competencies

Competency issues may be addressed by four major groups within the profession: higher education (universities, colleges, faculty, and students), AICPA and state societies, firms, and individual practitioners. Within each of these groups, decision makers first need to perform a gap analysis as illustrated in the figure below and then decide on a set of actions that is consistent with their mission and objectives. Possible actions by each of the four groups are described in the following paragraphs.



Higher Education

The findings, recommendations, and initiatives of the Accounting Education Change Commission (AECC) are beginning to diffuse through higher education, which is moving the curriculum for accounting majors in a direction consistent with the committee's recommendations and observations. Specifically, in Appendix B to its Position Statement Number One,[4] the AECC sets forth a Composite Profile of Capabilities Needed by Accounting Graduates. Within this context, additional emphasis needs to be given to gaining a better understanding of user needs, identifying information relevant to user decision processes, and gaining a better understanding of how information technology is transforming all aspects of business.

The audit curriculum should encompass a much broader range of assurance services. Audit education also needs to include a much wider and deeper exposure to information technology, including information design reliability issues. Finally, and perhaps most significant, audit education needs to adopt a customer focus, which not only would increase the emphasis given to understanding user needs, but also would also shift emphasis towards delivery of relevance enhancement services and away from the traditional emphasis on reliability enhancement.

AICPA and State Societies

Continuing professional education (CPE) offered by AICPA and state societies can make a major contribution to improving the profession's competencies. A high priority should be given to assisting practitioners in smaller firms, which generally will not have the resources needed to develop comprehensive instructional materials for all of the new assurance services that small firms may offer. Assistance may involve actual course development and delivery or simply identification of currently available sources of instruction offered by other entities.

Each of the new assurance services discussed above provides opportunities for smaller firms. A corresponding set of competency requirements is as follows:

- ***Electronic Commerce.*** The opportunity for small firms is to provide assurance services to small clients who are required by their suppliers or customers to use EDI. The competencies required to deliver this service involve an understanding of the risks involved in EDI and the various technology considerations involved in an EDI installation.

- ***Health Care Performance Measurements.*** The opportunity for small firms is to provide assurance to HMOs regarding the quality of service being provided by small health care contractors, such as individual doctors, physician groups, clinics, and nursing homes. The competencies required to deliver this service involve an understanding of the specific services provided to the HMO by the contractor and related quality attributes.

[4] See: "Objectives of Education for Accountants: Position Statement Number One," Accounting Education Change Commission, *Issues in Accounting Education,* Fall, 1990, pp. 307-312.

- ***Risk Assessment.*** A comprehensive assessment of risks and the small client's systems for dealing with them should be of considerable value to the small business owner/manager. The competencies required to deliver this service are generally those identified in the Table of Required Competencies; however, the corresponding knowledge and skill requirements need to be tailored to a small business environment.

- ***Business Performance Measurements.*** Small businesses need to consider performance measures beyond financial reports; hence, the opportunity exists for small firms to provide this assurance. The competency requirements shown in the Table of Required Competencies need to be tailored to the small business environment.

- ***Information Systems Reliability.*** Small businesses also need to consider the reliability of their information systems that deal with non-financial information, and the competencies required (again, tailored to the small business) are set forth in the Table of Required Competencies.

- ***ElderCare Plus.*** This assurance service is ideally suited for the small-firm practitioner. Potential customers may already be receiving tax and/or estate planning services. Other potential customers may reside in small communities where even the smallest practitioner will have an opportunity to enter the market. The competencies required to provide these services are those shown in the Table of Required Competencies.

The AICPA and state societies can also take indirect steps to encourage the building of the profession's competencies in selected areas. For example, by choosing to communicate with members electronically (including communications involving the delivery of CPE), these organizations send a strong message to firms and individuals to increase their competencies in IT.

The AICPA also needs to consider the implications of the competency requirements identified above for the CPA examination and for accreditation of specialists. For example, the CPA examination may need to place much more emphasis on information technology, user decision-making processes, and the uses and limitations of non-financial information. The examination may also need to shift emphasis from preparation skills to higher-order analysis, interpretation, and evaluation skills. Accreditation may be desirable for assurance services involving ElderCare Plus, health care performance , and possibly electronic commerce.

Firms

The actions that might be taken by firms will depend on their size, the extent to which they have in-house capabilities for instructional development and delivery, and the extent to which they choose to hire professionals with designated competencies rather than build those competencies internally. For those competencies to be developed internally, smaller firms will look to the AICPA and state societies for CPE courses that build competencies in the new assurance service areas discussed immediately above. In contrast, larger firms will need to decide which of the new assurance service opportunities offer the greatest promise for their firms and then either hire professionals or develop appropriate in-house training to support movement into those targeted areas.

Firms — large and small — can also take indirect steps to build competencies by appropriate development of infrastructure, e.g., by using the Internet and intranets to conduct business with clients and others.

Individuals

Previous paragraphs have identified a broad range of competencies that will be needed by individual practitioners in order to effectively compete in the market for assurance services during the next decade.

Much assistance in developing these competencies may come from CPE and firm training programs. On-the-job experience will also contribute significantly to the development of these competencies. Individuals must recognize, however, that much of the burden will fall on themselves to enhance competencies through a life-long commitment of self study. Perhaps the most graphic example of this burden is in the area of IT. Enhanced competencies in IT will only come about by a person's willingness to continuously stay abreast of developments in IT and, most importantly, to personally experiment with new hardware, software, communications devices, and electronic commerce to learn first hand how these things work and their advantages and limitations.

Produced by the AICPA Special Committee on Assurance Services

Composite Profile of Capabilities Needed by Accounting Graduates[5]

1. General Knowledge

- An understanding of the flow of ideas and events in history and the different cultures in today's world
- Basic knowledge of psychology, economics, mathematics through calculus, and statistics
- A sense of the breadth of ideas, issues, and contrasting economic, political and social forces in the world
- An awareness of personal and social values and of the process of inquiry and judgment
- An appreciation of art, literature, and science

2. Intellectual Skills

- Capacities for inquiry, abstract logical thinking, inductive and deductive reasoning, and critical analysis
- Ability to identify and solve unstructured problems in unfamiliar settings and to apply problem-solving skills in a consultative process
- Ability to identify ethical issues and apply a value-based reasoning system to ethical questions
- Ability to understand the determining forces in a given situation and to predict their effects
- Ability to manage sources of stress by selecting and assigning priorities within restricted resources and to organize work to meet tight dead-lines

3. Interpersonal Skills

- Ability to work with others, particularly in groups, to influence them, to lead them, to organize and delegate tasks, to motivate and develop people, and to withstand and resolve conflict
- Ability to interact with culturally and intellectually diverse people

4. Communication Skills

- Ability to present, discuss, and defend views effectively through formal and informal, written and spoken language
- Ability to listen effectively
- Ability to locate, obtain, organize, report, and use information from human, print, and electronic sources

[5] See: "Objectives of Education for Accountants: Position Statement Number One," Accounting Education Change Commission, *Issues in Accounting Education*, Fall, 1990, pp. 307-312.

5. Organizational and Business Knowledge

- A knowledge of the activities of business, government, and nonprofit organizations, and of the environments in which they operate, including the major economic, legal, political, social, and cultural forces and their influences
- A basic knowledge of finance, including financial statement analysis, financial instruments, and capital markets, both domestic and international
- An understanding of interpersonal and group dynamics in business
- An understanding of the methods for creating and managing change in organizations
- An understanding of the basic internal workings of organizations and the application of this knowledge to specific examples

6. Accounting Knowledge

- History of the accounting profession and accounting thought
- Content, concepts, structure, and meaning of reporting for organizational operations, both for internal and external use, including the information needs of financial decision makers and the role of accounting information in satisfying those needs
- Policy issues, environmental factors, and the regulation of accounting
- Ethical and professional responsibilities of an accountant
- The process of identifying, gathering, measuring, summarizing, and analyzing financial data in business organizations, including:
  - The role of information systems
  - The concepts and principles of information system design and use
  - The methods and processes of information systems design and use
- The current and future roles of computer-based information technology
- The concepts, methods, and processes of control that provide for the accuracy and integrity of financial data and safeguarding of business assets
- The nature of attest services and the conceptual and procedural basis for performing them
- Taxation and its impact on financial and managerial decisions
- In depth knowledge in one or more specialized areas, such as financial accounting, management accounting, taxation, information systems, auditing, nonprofit, government, and international accounting

7. Accounting Skills

- Ability to apply accounting knowledge to solve real-world problems

8. Personal Capacities and Attitudes

- Creative thinking
- Integrity
- Energy

- Motivation
- Persistence
- Empathy
- Leadership
- Sensitivity to social responsibilities
- A commitment to life-long learning

Table of Required Competencies

Competencies \ Services	Evolving Audit/ Attest	Electronic Commerce	Health Care Performance Measurement	Risk Assessment	Business Performance Measurement	Information Systems Reliability	ElderCare Plus
I — Competencies relevant to the provision of assurance services today:*							
• Accounting standards	H**	L	L	L	L	L	L
• Auditing standards	H	M	M	M	M	M	M
• Administrative capability	M	M	M	M	M	M	M
• Analytical skills	H	H	H	H	H	H	M
• Business advisory skills	H	H	H	H	H	H	L
• Business knowledge	H	H	H	H	H	H	L
• Capacity for work	M	M	M	M	M	M	M
• Communication skills	H	H	H	H	H	H	H
• Efficiency	M	M	M	M	M	M	M
• Intellectual capability	H	H	H	H	H	H	M
• Learning and rejuvenation	M	H	H	H	H	H	M
• Marketing and selling	H	H	H	H	H	H	H
• Managing audit risk	H	M	M	H	M	M	L
• Model building	H	H	H	H	H	H	L
• People development	H	H	H	H	H	H	H
• Relationship management	H	H	H	H	H	H	H
• Responsiveness and timeliness	H	H	H	H	H	H	H
• Technology	H	H	H	H	H	H	M
• Understanding client's business processes	H	H	H	H	H	H	L
• Verification	H	H	H	M	M	H	M
II — New competencies needed:***							
• Knowledge of risks of electronic commerce****	M	H	M	H	M	H	
• Detailed knowledge of IT developments involving electronic commerce: • Communication (including EDI, Internet and intranets) • Encryption • Automated test techniques (including sensors, agents, models, etc.)	M	H	M	M	M	H	
• Knowledge of preventive controls and reliability-by-design	M	H	H			H	

Competencies \ Services	Evolving Audit/ Attest	Electronic Commerce	Health Care Performance Measurement	Risk Assessment	Business Performance Measurement	Information Systems Reliability	ElderCare Plus
• Knowledge of security and integrity criteria for electronic commerce	M	H	M	M	M	H	
• Knowledge of health care delivery system			H				M
• Knowledge of health care services and quality attributes			H				M
• Knowledge of a comprehensive profile of organizational risks involving: • Environment • Business process and assets • Information	M	M	M	H	H	M	
• Knowledge of processes involved in setting mission, vision, and objectives	H	M	H	H	H	M	M
• Knowledge of business strategy	H	M	H	H	H	M	
• Knowledge of measurement theory and skills in defining and constructing measures	H	M	H	H	H	H	M
• Understanding of "data about data" and limitations of various data	H	M	H	H	H	H	
• Understanding of sensitivity analysis and its role in assessing information alternatives	H	M	H	H	H	M	
• Knowledge of physical and psychological needs of the elderly							H
• Knowledge of care giver services and quality attributes			H				H
• Knowledge of legal considerations in elder care							H

*For definitions of the competencies in Section I and descriptions of specific skills that comprise each competency, see: The Profession's Current Competencies.

**Cell entries indicate the expected level (High, Medium, or Low — blank cells indicate "not applicable") of competency that will be needed to effectively deliver the service.

***The terms "knowledge of" and "understanding of" used in Section II are meant to imply a requisite level of expertise that would be needed by a practitioner to effectively carry out applications.

****For a comprehensive statement of IT competency requirements needed by professional accountants, see: "Information Technology in the Accounting Curriculum — Guideline #11," *International Federation of Accountants, 1995.*

Assurance Services — Definition and Interpretive Commentary

This section describes the Special Committee on Assurance Service's conceptual framework for assurance services. It is intended to be helpful to AICPA committees, individual CPAs, and firms in identifying, defining, and delivering future assurance services. It does not have the authority of a standard issued by an AICPA senior technical committee, has not undergone the Institute's process to establish standards, and is not part of the Code of Professional Conduct.

The framework's primary objective is to provide a consistent view of assurance services. It provides guidelines that will enhance consistency and quality in the performance of services. It can also help establish a common public perception of the CPA's function and value.

Assurance services evolve naturally from attestation services, which in turn evolved from audits. The roots of all three are in independent verification. However, the form and content of the services differ. The earlier services are highly structured services considered to be relevant to the greatest number of users. The newer ones are more customized and targeted services intended to be highly useful in more limited circumstances.

Even when assurance services do not deal with traditional accounting data, they are consistent with the concept of certified public accounting. As the AICPA has stated (BL§921.06-.07):

> In the practice of public accounting CPAs bring competence of professional quality, independence, and a strong concern for the usefulness of information and advice they provide.... The professional quality of their services is based upon experience and the requirements for the CPA certificate — education and examination — and upon the ethical and technical standards established and enforced by their profession.

Assurance services are expected to form a platform for the future evolution of the profession. This framework is purposely broad so that it does not inhibit the growth and usefulness of the services in circumstances that cannot be foreseen today. It provides focus so that users benefit from the most valuable traits of CPAs and aspects of today's CPA services.

Definition of Assurance Services

Assurance services are independent professional services that improve the quality of information, or its context, for decision makers.

Implicit in this definition is the idea that people use assurance services when they have to make decisions. The services are intended to improve the information used in the decision process. Presumably, better information should lead to better decisions.

Rational decisions are made based on information. Assurance services might involve any type of information. Information can be financial or nonfinancial. It can be about discrete phenomena or about processes or systems (such as internal control or decision models). It can be direct (such as information about a product) or indirect (such as information about someone else's assertion about a product). It can be internal or external to the decision maker. The goal of assurance services is information improvement, not the issuance of a report on it (though there might be a report).

The term *assurance* implies to some a form of report in which the practitioner provides an independent conclusion about someone else's information. However, because this view focuses on appearance and is unnecessarily constricting, it is not incorporated in the definition of assurance services. Requiring a written report, for example, is unwieldy in many situations, such as on data in electronic format. It is the service itself that provides value, not the report, although a report is one way to demonstrate value. Trying to fit a range of services into a predetermined presentation or reporting format would stifle the growth of services and would not be responsive to the needs of decision makers.

Assurance services help people make better decisions by improving information available to them. To consider the ramifications and limitations of this definition consider how decisions are made. Events are captured, summarized, refined, and used to make decisions. Assurance services can:

- *Capture information*. Assurance services can capture information by using existing or improved measurement tools.
- *Improve information reliability*. Raw information is refined into reliable information. This is the scope of the attestation standards; improving the reliability of information. This type of service is independent of the decision maker. Any raw information can be refined, regardless of whether it is used for decision making at all.
- *Improve decision-making*. Services can improve decision making by enhancing not only the reliability of information, but also its relevance and availability for the decision maker. Decision making also can be improved by improving the context, such as decision models, used by the decision maker. This facet of assurance services differs from existing attestation models.

Independence

Users rely on the CPA's independence. They derive value from the fact that CPA has no interest in the information other than its usefulness. Accordingly, independence has been, and will continue to be, the foundation on which the assurance function is based. The concept of independence for assurance services is consistent with, but framed differently from, its counterpart for audit or attestation services.

Assurance independence is an absence of interests that create an unacceptable risk of material bias with respect to the quality or context of information that is the subject of an assurance engagement.

There is no definition of independence governing audits. The concept currently applied is based on independence rules in the code of conduct and a passage in GAAS (SAS No. 1, AU§220). The definition of independence as it applies to assurance engagements has been extrapolated from the fundamental assumptions inferred from the authoritative statements on audit independence.

Under this concept of independence, the practitioner considers any interests that could cause bias with respect to the information. There are two kinds of interests that could damage a CPA's independence: economic interests and psychic interests. Ownership of an auditee's stock is an economic interest. A brother who is the CEO of an auditee is a psychic interest. However, a single circumstance can have characteristics of both categories. For example, an assurer who makes managerial decisions for a client has both a psychic interest and an economic interest — continued employment — that could affect objectivity.

Information can be independently developed, assembled, and delivered only when the assurer has no interest in the supplied information that would create an unacceptable risk of material bias. Merely preparing information does not create an interest inconsistent with desiring its accuracy or being objective. The independent preparer of information would remain equally independent before, during, and after having prepared the information; parties interested in the quality of the information would benefit from its independent preparation (assuming the assurer's competence, integrity, and objectivity and the user's need for the information).

Professional Services

The concept of *professional services* encompasses the application of professional *judgment*, which is the CPA's stock-in-trade. This judgment, along with independence, is a cardinal value added by a CPA's participation. While advances in information technology can speed the accumulation or analysis of data, technology cannot replace the practitioner's professional judgment. This judgment distinguishes assurance services from mere summarizing of data. Accordingly, an engagement to simply process data without applying judgment in its preparation or presentation is not an assurance engagement.

In providing a professional service, the CPA is bound by rule 201 of the AICPA Code of Professional Conduct. Rule 201 requires that practitioners comply with the following standards in all engagements:

> ***Professional competence***. Undertake only those professional services that the member or member's firm can reasonably expect to be completed with professional competence.
>
> ***Due professional care***. Exercise due professional care in the performance of professional services.
>
> ***Planning and supervision***. Adequately plan and supervise the performance of professional services.
>
> ***Sufficient relevant data***. Obtain sufficient relevant data to afford a reasonable basis for conclusions or recommendations in relation to any professional services performed.

The practitioner applies professional judgment to the information on which the service is performed. The procedures applied are those appropriate for the specific level of service he or she is engaged to perform. They might or might not involve testing of assertions.

Some assurance engagements involve attestation or other services that are already covered by detailed performance and reporting standards, although many don't. When performing an assurance engagement, the practitioner should consider whether the measurement criteria to be used are appropriate for the purpose. GAAS requires the use of GAAP (or another comprehensive basis of accounting "OCBOA") as measurement criteria. The attestation standards require that measurement criteria be established in a certain manner or be adequately described in the presentation. Other assurance engagements are more flexible in their use of criteria. (Certain standards, such as the *Government Auditing Standards* for audits of certain governmental entities, call for the use of specified criteria.)

The practitioner can be satisfied that the measurement criteria are appropriate in the circumstances by involving decision makers in the selection. Decision makers preferably are consulted before the engagement to make sure the criteria are appropriate in the circumstances. Ideally, decision makers also provide feedback to the practitioner regarding the efficacy of the engagement and their satisfaction with the output.

There are no specific report forms for assurance engagements, unlike audit and other attestation engagements. However, communication of the engagement results is a characteristic of assurance services. Users can obtain assurance from the practitioner's service only if they are aware of his or her involvement. Accordingly, there must be some form of communication by the practitioner. The communication need not be a formal or written report. The communication may be oral or otherwise indicated through the practitioner's involvement.

Improving the Quality of Information or Its Context

The improvement in information quality comes about as a result of the practitioner's involvement in the engagement. It does not necessarily mean that information subject to the practitioner's service is different from what it would look like if there were no assurance engagement. The application of professional judgment provides assurance to users that would not exist without the practitioner's involvement. This is similar to the situation in which an auditor issues an unqualified report on financial statements, but does not actually draft them or propose adjustments to them.

The term *quality* explicitly identifies the key driver of the service. The term encompasses the concept of decision usefulness. Assurance services can provide confidence about either of two aspects of the information (The dichotomy used here differs somewhat from the description in Statement of Financial Accounting Concepts No. 2 to simplify the discussion.):

- ***Reliability***, which includes representational faithfulness, neutrality, and consistency among periods

- ***Relevance***, which includes understandability, comparability with other entities, usability, and completeness.

An assurance service can add confidence about reliability, relevance, or a combination of them. In some cases, reliability may be sacrificed for relevance (recognizing that some will argue that data that are unreliable cannot be relevant). Many people think that is a bad tradeoff, but the decision is essentially a cost/benefit decision for each individual user. A service that sacrifices some reliability for increased relevance is by definition an assurance service because of the relevance improvement. Users can decide if the overall quality of the information is improved given the intended use. If so, the service will be purchased; if not, it won't.

Context relates to the information's relevance to the decision-maker. It includes the decision process and the format in which the information is presented. Although related to relevance, it is not the same because context doesn't affect the information itself but, rather, how it is used. For example, sorting disaggregated data changes neither their relevance or reliability, but it might improve the context in which they are used.

Decision makers

Decision makers may be, but are not necessarily, clients. Assurance services are intended to provide a benefit to the decision maker. The decision-maker is, accordingly, featured prominently in the services' definition. This construction differs from the technical descriptions of audit, attestation, compilation, review, and consulting services, which refer, instead, to the practitioner's output. This point is a critical recognition of the importance of a customer focus.

Although it's not intrinsic to the definition of assurance services, there are, as a general rule, three parties involved in an assurance engagement. The engagements are generally provided when there is an oversight or accountability relationship. The practitioner is called upon to provide assurance that helps one party make a decision involving that accountability or oversight of the other.

In some cases, two of the three "parties" might be employed by the same entity. For example, the board of directors has an oversight responsibility for the enterprise's operating units. It might engage the practitioner to provide an assurance service involving measurement of performance of those operating units or for assurance regarding the quality of the information systems in use in the company. In those cases there are three parties to the engagement (the practitioner, the board of directors, and the operating or support unit) although it might not appear so at first glance.

The third-party interest is a principal reason for the need for independence in assurance services. When there are two parties with conflicting interests (such as a call by one for accountability from the other), it is important that the CPA have no interest in the information other than its quality and context.

The Public Interest

There are no laws or regulations that reserve to CPAs the provision of assurance services (beyond audits and, in some cases, compilations or reviews of financial statements). Users turn to CPAs for assurance services because of their reputation for integrity, objectivity, due professional care, and their genuine interest in serving the public. These are the hallmarks of the profession. Assurance services should be consistent with acceptable professional behavior for CPAs.

The AICPA Code of Professional Conduct (ET§57.03) advises that, "The practitioner should practice in a firm that has in place internal quality-control procedures to ensure that services are competently delivered and adequately supervised." A commitment to quality control helps permit the CPA to assume new responsibilities seemingly unrelated to the traditional core of accounting and auditing.

Building quality into the design of assurance services recognizes the public interest. To continuously improve the practice, CPA firms can apply total quality management techniques, including feedback from users, to enhance assurance services.

Distinguishing Assurance and Other Services

Attestation Services

An attestation service is defined as:

> an engagement in which a practitioner is engaged to issue, or does issue, a written communication that expresses a conclusion about the reliability of a written assertion that is the responsibility of another party. (SSAE No. 1, AT§100.01)

Assurance services encompass attestation services. That is, all attestation (and audit) services are assurance services. The overriding principles and any rules that derive from them also apply to attestation services. However, additional detailed standards apply to attestation services. They are contained in the statements on standards for attestation services. There are no conflicts between the SSAEs and the conceptual framework discussed here, although additional requirements apply to attestation engagements.

The following requirements apply to attestation services, but do not apply to other (nonattestation) assurance services:

- Attestation services require written assertions and a practitioner's written report.
- Attestation services require the formal establishment of measurement criteria or their description in the presentation.
- The levels of service in attestation engagements are limited to examination, review, and application of agreed-upon procedures.

Compilation Services

Compilation services are defined as:

> presenting in the form of financial statements information that is the representation of management (owners) without undertaking to express any assurance on the statements. (SSARS No. 1, AR§100.04)

A compilation improves the quality of information by displaying it in a GAAP (or OCBOA) format and the practitioner's identification of obvious errors. Accordingly, it falls within the definition of an assurance service despite the fact that no assurance is explicit in the practitioner's report.

Consulting Service

Professional standards define consulting services as:

> professional services that employ the practitioner's technical skills, education, observations, experiences, and knowledge of the analytical approach and procedures used in a consulting engagement. [Those procedures may involve determining client objectives, fact-finding, definition of problems or opportunities, evaluation of alternatives, formulation of proposed action, communication of results, implementation, and follow-up.] (SSCS No. 1, CS§100.05)

Assurance does not encompass consulting services. There are often similarities between assurance and consulting services because they are delivered using a similar body of knowledge and skills. What differentiates the two services is the context in which the knowledge and skills are deployed.

In an assurance engagement the primary purpose of the service is to improve the quality or context of information. Although information quality or context might be improved in a consulting engagement, that is not its primary purpose. For example, in an engagement to design and install a computer application, the primary purpose is to install the application even though the resulting information may ultimately be improved. Thus, it is a consulting engagement.

The difference between consulting and assurance services is based on the goal of the engagement: consulting services focus on outcomes; assurance services focus on decision-makers and the information they use. Consulting services are designed to improve the client's condition directly. Assurance services attempt to help decision makers (who might not be clients) arrive at optimum decisions. An assurance service is intended to improve the decision maker's condition only indirectly (that is, through the use of high-quality information for decision making). The provision of assurance services involves work that often results in the practitioner's forming recommendations for improvement, for example, in an entity's processes. Attestation and other assurance services generally result in such ancillary recommendations.

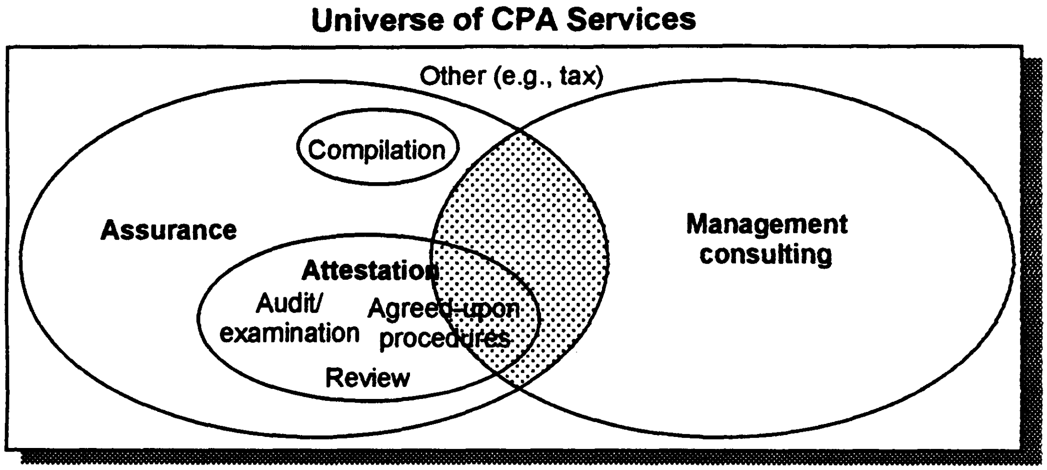
In a consulting service the practitioner develops findings, conclusions, and recommendations presented. It is generally a two-party arrangement: the CPA and the client. Assurance services are an extension of the audit/attestation tradition. Accordingly, they are generally provided in the context of the CPA's intermediation between two parties with non-congruent interests. The two parties may, however, work for the same entity (for example, operating and financial personnel).

Distinguishing assurance and consulting services is not always easy; similar goals can be achieved through either approach. For example, a client that wants information about the quality of its internal controls could engage a CPA to provide a critique with suggestions for improvement under the consulting standards or provide a report on internal control effectiveness under the attestation standards.

The following chart compares the types of services:

	Attestation	**Assurance**	**Consulting**
Result	Written conclusion about the reliability of the written assertions of another party.	Better information for decision-makers. Recommendations might be a byproduct.	Recommendations based on the objectives of the engagement.
Objective	Reliable information.	Better decision making.	Better outcomes.
Parties to the engagement	Not specified, but generally three (the third party is usually external); CPA generally paid by the preparer.	Generally three (although the other two might be employed by the same entity); CPA paid by the preparer or user.	Generally two; CPA paid by the user.
Independence	Required by standards.	Included in definition.	Not required.
Substance of CPA output	Conformity with established or stated criteria.	Assurance about reliability or relevance of information. Criteria might be established, stated, or unstated.	Recommendations; not measured against formal criteria.
Form of CPA output	Written.	Some form of communication.	Written or oral.
Critical information developed by —	Asserter.	Either CPA or asserter.	CPA.
Information content determined by —	Preparer (client).	Preparer, CPA, or user.	CPA.
Level of assurance	Examination, review, or agreed-upon procedures.	Flexible, for example, it might be compilation level, explicit assurance about usefulness of the information for intended purpose, or implicit from the CPA's involvement.	No explicit assurance.

Following is a graphic representation of the relationship among the professional services in the universe of CPA services. It shows that the boundary between assurance and consulting services is indistinct. The relative scales do not imply the size or importance of the practices or opportunities. The shaded area represents those services on the fringes that, if structured to meet one goal, are assurance services and, if structured to meet a different one, are consulting.



The "economic space" occupied by assurance services was not created through this section's definition. That is, services that are neither attestation, compilation, nor consulting exist and can be provided even in the absence of this framework. The concept of assurance services gives shape to a subset of this otherwise undefined body of services. A different definition would change the shape or size of the assurance service space, but wouldn't change the rest of the universe or the services that can be provided.

Relevance Enhancement Assurance Services

This report of the Special Committee on Assurance Services consists of 10 sections plus notes and an illustrative appendix.

Introduction

This report identifies the role that practitioners can play in enhancing the relevance of information used by decision makers in solving their decision problems.[1] Why explore relevance enhancement by CPAs? The answer lies in the definition of assurance services and the treatment of relevance in decision makers' interests in the past.

The Special Committee on Assurance Services (Committee) defines assurance services as:

> Independent professional services that improve the quality of information, or its context, for decision makers.

The phrase "quality of information" explicitly identifies the key deliverable of an assurance service engagement. Improving information quality means making information more useful to decision makers. Information becomes more useful if it is more relevant to the decision at hand or if it is more reliable, or both. Information may also become more useful when tradeoffs are made between relevance and reliability, e.g., information that is more relevant but less reliable may be more useful to a decision maker.

Traditional audit and attest engagements have focused primarily on improving information quality through enhancement of reliability. In contrast, questions regarding relevance traditionally have been addressed at the institutional level. Standard setters have focused on relevance issues by:

- Developing a conceptual framework, which establishes the relevance of particular information to broad classes of decision makers through the identification of logical linkages between specified decisions and the information;

- Establishing a "due process" approach for creating standards regarding disclosure of new information, which provides a mechanism for decision makers to express their beliefs regarding the relevance of the new information to their decisions.[2]

The institutional approach for dealing with relevance issues may have been adequate in years past when the range of decision-making activities and the total amount of information under consideration were both more limited. But in today's fast changing environment, characterized by exploding information availability and rapid emergence of vast numbers of newly empowered decision makers, the traditional approach is no longer adequate for two major reasons. First, the institutional approach essentially reflects a "one-size-fits-all" perspective. Although such a perspective often enhances comparability, it may reduce relevance, which requires a customer focus. What's needed is a new approach to relevance issues that adopts the perspective of particular decision makers and examines relevance in light of their specific decision problems. Second, the institutional approach, because of its time-consuming "due process," often does not provide a timely solution to a particular decision maker who may need to act before "due process" has run its course. In short, relevance issues need to be addressed in a way that is more responsive to individual decision makers and in a time frame that is more consistent with their particular decision problems.

To explore how practitioners might enhance the relevance of information used by decision makers, this report closely examines what is meant by user decision problems and what role information plays in solving those problems. It begins by describing the major elements of decision problems and by examining a decision-theoretic conceptual approach for combining those elements in a decision model that arrives at an "optimal" solution. The role of information in the conceptual model is then briefly identified. Next, the conceptual model is translated into a more practical, step-by-step process for decision making. The role of information in that process is also identified. The report continues by examining how the relevance of information used in decision making may be assessed and enhanced by CPAs as part of an assurance service engagement involving "relevance enhancement." The report concludes with a definition of "relevance enhancement" that reflects the major ideas developed in previous sections.[3]

Major Elements of Decision Problems

Decision theory literature[4] divides "decision problems" into the following major elements:

- ***Decision maker(s).*** Someone — an individual or group — has the "problem."

- ***Desired outcome(s).*** The decision maker desires one or more outcomes (i.e., wants to achieve one or more objectives). Unless a decision maker desires to obtain at least one as-yet-unattained outcome, there can be no decision problem.

- ***Alternatives.*** The decision maker has available at least two feasible courses of action (one of which may be deliberate inaction) that have some chance of yielding the desired outcome(s). If no more than one action can be taken, there is no real problem to be solved.

- ***Environment.*** The decision problem takes place within an environment (or system) that consists of all possible factors (i.e., possible states of nature) which can affect the actual outcome and which are not under the control of the decision maker(s).

- ***Uncertainty.*** The decision maker is in a state of doubt (is uncertain) as to which course of action is "best." If no state of doubt exists, the decision maker does not face a decision problem.[5]

Decision theorists have developed a highly conceptualized model for arriving at an optimal solution with these decision problem elements. The model is examined next.

A Conceptual Model for Arriving at an Optimal Solution

The basic conceptual approach set forth in decision theory literature[6] for arriving at optimal solutions to decision problems may be described briefly as follows. The decision maker, drawing on existing knowledge and experience, completely specifies the decision-problem elements, namely:

1. ***Desired outcomes***. The decision maker specifies a complete set of outcomes and a corresponding complete set of utility assessments that describe the decision maker's preferences for each of the various possible outcomes.

2. ***Alternatives***. The decision maker specifies a complete set of feasible alternative courses of action that may be taken to "solve" the problem. One and only one of the courses of action will be selected.

3. ***Environment***. The decision maker specifies a complete set of alternative future states (i.e., all possible combinations of future values of environmental factors) that may occur within the environment of interest which can affect the actual outcome and which are not under the decision maker's control.

4. ***Uncertainty***. The decision maker specifies a complete (prior) probability function that consistently describes the possibilities of the various future states occurring.

Given these specifications, the decision maker "solves" the decision problem by finding the "optimal solution,"[7] i.e., the action choice that produces maximum expected utility.

The Role of Information in the Conceptual Model

In the conceptual model just described, information comes into play in two ways. First, the decision maker draws upon knowledge and experience (i.e., information) in specifying completely all details of the four major elements of the decision problem: outcomes and corresponding utility assessments, alternative actions, alternative states, and probabilities over the various states. This information is sufficient for the decision maker to find the optimal solution, which identifies the optimal action and its corresponding expected utility value. At this point, the decision maker may entertain the possibility of collecting additional information that might remove some of the uncertainty surrounding future states.[8] Such additional information is considered to be "relevant" if it changes the decision maker's prior probability distribution on the various states of nature:

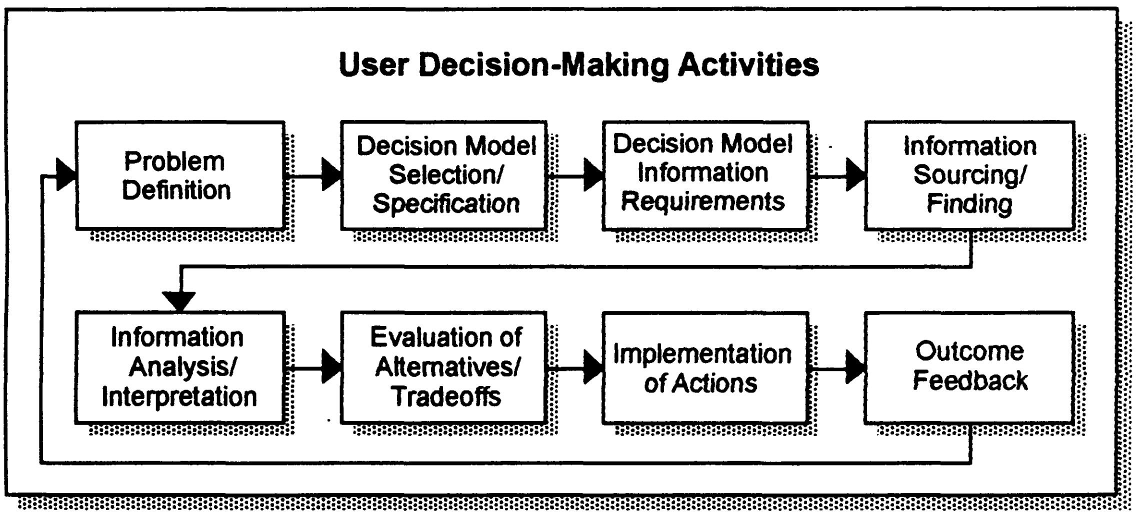
> But not all information results in such a change. In other words, you should distinguish between *relevant* and *irrelevant* information. The former contributes to the knowledge of the decision maker about the possible states that will prevail, while the

latter may overload the decision maker with data which doesn't change his uncertainty about what might occur.[9]

The above conceptual model is rarely used in practice because complete specification of all elements of the model is generally viewed to be impracticable. Consequently, practical approaches to decision making drastically simplify the specification of the model elements described above. The following section describes a more practical approach to decision making and explores the role of information in such decision-making processes.

A Practical Process for Decision Making and the Role of Information

Decision making activities often unfold in this type of step-by-step process:



In the following paragraphs, each step in this figure will be linked to elements of the decision-theoretic conceptual model presented earlier. The role of information in each step will also be identified (see Table 2).

Problem Definition

The process of problem definition involves finding or discovering a problem that needs to be addressed and then carefully framing or articulating the problem in a precise manner that facilitates further efforts toward solving it. Much of this discovery activity is conducted by decision makers through surveys of the external economic, social, political, and technological environments that search for new or changing conditions that may call for new actions. Closer to home, the decision maker typically monitors a variety of activities and processes of which he or she is a part, whether through employment, through social interaction, or through other roles (investor, creditor, student, patient, consumer, etc.). Finally, decision makers may identify problems by assessing the outcomes of past actions. In comparison to other activities shown in the figure above, problem finding activities often require relatively large commitments of time and effort. Eventually they lead to problem identification, i.e., to the realization by the decision maker of a desire for one or more outcomes not yet attained.

Three major types of information enter into this initial step of the decision maker's process:

- Environmental information,
- Process monitoring/diagnostic information, and
- Outcome feedback information.

Very little of this information comes to the decision maker in a form tailored to his or her needs. Most of the information is part of the "sea of data" that the decision maker must navigate (possibly aided by an intermediary) in search of significant problems that require action.

Decision Model Selection/Specification

Having identified "the problem," a decision maker generally begins to think more carefully about the outcomes or objectives to be sought (element 1 of the Conceptual Model) and the nature and range of possible courses of action that might be taken to achieve those outcomes (element 2 of the Conceptual Model). At the same time, the decision maker generally begins to consider how various environmental factors may come into play in affecting outcomes (element 3 of the Conceptual Model) and to what extent uncertainly exists with respect to environmental factors that appear to be significant (element 4 of the Conceptual Model). These various considerations essentially lead to a first cut at specifying a "model" of the decision problem. The model may be specified by the decision maker directly, or the model may result from a search for and review of prototype models developed by others that appear to fit the situation under study.

Generally, the model that emerges in this step will be a drastic simplification of the decision-theoretic conceptual model described earlier because the *complete* analysis envisioned in the theoretic approach is simply impracticable. As indicated in Table 1, a simplified the model will generally include the same four major elements found in the conceptual model, but those elements are often described using slightly different terminology. In addition, simplified models often include constraints on decision variables.[10]

Table 1

Simplified vs. Complete Decision Model

Complete Model	Simplified Model
Complete set of outcomes and corresponding utility assessments	Simplified objective function
Complete set of alternative actions	Simplified set of decision variables (dependent variables)
Complete set of alternative states	Simplified set of parameters and independent variables
Complete prior probability distribution over states	Simplified prior probability distribution over parameters (or an assumption that some or all parameters are known with certainty)
N/A	Constraints on the set of decision variables

The types of information that generally enter into this second step in a decision maker's process include the same three types of information drawn upon in defining the problem. In addition, a decision maker often collects information on decision models that might apply to the problem under consideration. Finally, and importantly, this step often involves an extensive search for information that may be useful in "inventing" alternative courses of action for solving the problem:

> They [decision makers] probably spend an even larger fraction of their time [a larger fraction than is spent in problem finding], individually or with their associates, seeking to invent, design, and develop possible courses of action for handling situations where a decision is needed.[11]

Decision Model Information Requirements

The previous step results in identifying (i.e., naming) an initial set of independent and dependent variables of interest in the decision problem and modeling their relationships (i.e., articulating the model's structure). Specification of the model's information requirements involves developing definitions of appropriate measures for all of the parameters and independent variables that are incorporated in the model. This definitional step is critically important:

> Definitions of variables or constants are required for working with them effectively, but all too often these definitions are not explicitly formulated. This not only makes it difficult to understand the model and the results derived from it but also suppresses the criteria for *relevance of observational data....*

By showing the relationship between concepts in conceptual definitions the *relevance of various types of knowledge to the study of the concept being defined is demonstrated.*[12]

The major types of information that enter into this "information requirements" step include:

- Information used to conceptually define the independent variables that appear in the model, which are of two types: (1) a number of objects or events that involves a count or enumeration and (2) an amount of a property which an object or event possesses.[13]

- Various laws and theories that come into play in specifying the operational conditions under which the parameters and independent variables of interest may be measured.

Information Sourcing/Finding

This step uses the operational definitions of parameters and independent variables that were developed in the previous step as a guide in finding and using appropriate data for constructing actual measurements of those items. This step uses two types of information:

- The definitions of parameters and independent variables created in the previous step.

- Various databases that contain data that may be used to construct measurements of those variables.

Information Analysis/interpretation

The potential sources of data that may be used in the previous step to create measurements of parameters and independent variables are not only very numerous but also growing rapidly in today's information economy. Even given large amounts of data from which to choose, however, it may often be difficult to find data that exactly fit the definitions of model parameters and independent variables developed in the earlier step. Also, available data will have been generated from systems that differ drastically in controls; hence, the reliability of data will vary widely. Consequently, the decision maker needs to analyze the data used to develop model parameters and independent variables in order to better understand its limitations.

The types of information that enter into this step of the decision making process include:

- The definitions of model parameters and independent variables created in an earlier step,

- The data actually used to create measurements of those model elements, and

- "Data about data," e.g., relevance and reliability tags that identify the level of assurance associated with a data element, the preparer's intended definition of the data, and explicit restrictions on use of the data.[14]

Evaluation of Alternatives and Tradeoffs

Computerized decision models may do much of the work involved in evaluating alternatives and tradeoffs. Recall, however, that the practical model under consideration, whether or not computerized, generally involves a drastic simplification of the so-called *complete* model. In short, the decision maker, in moving from a complete model to a simplified model, consciously suppresses various phenomena that may or may not turn out to be important to the decision.[15]

Sensitivity analysis is an important tool for assessing whether the present model (i.e., the present set of information) provides an adequate basis for making the decision. In essence, it allows the decision maker to raise a series of "what if" questions regarding various information alternatives that may or may not alter the selected action.[16]

The types of information that enter into sensitivity analysis include:

- The model itself (which is simply a set of information organized in a particular manner),

- The decision maker's knowledge (or that of his or her advisor) regarding aspects of the simplified model that represent significant areas of suppression of known phenomena, and

- The "data about data" collected in the previous step.

Implementation of Actions

One of the major simplifications involved in most decision making activities is the use of a small set of decision variables to reflect a much larger (i.e., complete) set of alternative courses of action (see Table 1). The consequence of this simplification is that, once a decision is made, the decision maker is faced with a major translation process in which decision variable settings indicated by the optimal solution are translated into specific implementation tasks to be carried out by individuals. In addition, once implementation commences, the decision maker generally monitors its progress.

The major types of information involved in implementation include:

- The "optimal" solution, i.e., the settings for the decision variables indicated by the optimal solution,

- Information used to translate the decision variable settings into implementation tasks, and

- Periodic measurements that monitor the progress of implementation.

Outcome Feedback

Several types of "outcome feedback" are of interest. The decision maker is obviously interested in knowing whether the chosen actions were actually implemented, and if so, to what extent those actions achieved desired outcomes (i.e., to what extent the decision fulfilled specified objectives). The decision maker is also interested in improving decision making processes over time and hence may want to provide feedback to other individuals and groups who played a role in the previous decision process, including information preparers and information intermediaries.[17]

The types of information that are involved in outcome feedback include:

- Comparative information on chosen actions vs. implemented actions and desired outcomes vs. actual outcomes, which represents feedback to the decision maker, and

- Diagnostic information on deficiencies in information used for decision making, which represents feedback to preparers and information intermediaries.

Summary of the Role of Information in Decision Processes

Table 2 summarizes the various types of information identified above that are generally used by decision makers. The table is intended to capture the essence of "relevant information for decision making." In short, relevant information is viewed very broadly as any information that assists the decision maker at each and every step of the decision process described in the figure above. In addition, the types of information are extremely rich, both in variation and in the potential sources from which a particular type of information may be derived. The table shows that numerous complex "information choices" must be made by a decision maker at each step of a decision process. Since no hard, fast rules exist for making most of those choices, the decision maker might benefit from the assistance of an information intermediary who understands decision processes and who specializes in assessing and reporting on the relevance (and reliability) of information utilized in those processes.

Table 2

Types of Information Used in Decision Making

Decision Making Activity (steps)	Types of Information Used[18]
1. Problem definition	• Decision maker's objectives • Environmental information • Process monitoring/diagnostic information • Outcome feedback information (see step 8 below)
2. Decision model selection/specification	• Information on extant decision models • Information useful in inventing/designing alternatives
3. Decision model information requirements	• Information used to develop definitions of model parameters • Information about concepts that are related to the parameters and are used in defining parameters • Laws and theories used in developing operational definitions of parameters
4. Information sourcing/finding	• Various data bases drawn upon in constructing measurements of model parameters
5. Information analysis/interpretation	• "Data about data" • Reliability tags • Preparer definitions • Restrictions on intended uses of data
6. Evaluation of alternatives/tradeoffs	• The decision model itself • Information about areas of the simplified decision model wherein significant suppression of known phenomena has occurred • Sensitivity analysis results
7. Implementation of actions	• Decision variable settings for the optimal solution • Information that links decision variables to implementation activities and task performance • Periodic measurements that monitor implementation
8. Outcome feedback	• Comparative information on desired outcomes vs. actual

	outcomes • Diagnostic information on deficiencies in the information used in the entire decision-making process

The Role of CPAs in Enhancing Information Relevance

What role might a CPA play in enhancing the relevance of the types of information shown in Table 2? The enhancement activities are given below, and they represent assurance opportunities for CPAs:

1. ***Assistance in problem definition.***

    - Identify appropriate environmental information that needs to be continuously monitored for changes in conditions that may require action.

    - Develop appropriate process output measures that may be used to identify the need for action.

    - Develop appropriate outcome feedback measures that may be used to improve future decisions (see outcome feedback, below).

2. ***Assistance in decision model selection/specification.***

    - Identify information that may be useful in defining objectives.[19]

    - Identify information that may be used to develop alternative courses of action.[20]

    - Identify information that may be used to define environmental factors.[21]

    - Identify appropriate "off-the-shelf" decision models that may be used to address a decision problem.

3. ***Assistance in determining decision model information requirements.***

    - Develop operational definitions of model parameters.

4. ***Assistance in sourcing/finding information.***

- Identify data that may be used to construct appropriate measurements of model parameters.

5. *Assistance in information/analysis/interpretation.*

    - Identify limitations in the data used to construct measurements of model parameters and determine the ramifications of those limitations on the decision maker's model.

6. *Assistance in evaluation of alternatives and tradeoffs.*

    - Perform sensitivity analysis regarding various information alternatives available to the decision maker.

7. *Assistance in implementation.*

    - Develop appropriate measures for monitoring the progress of implementation.

8. *Assistance in outcome feedback.*

    - Develop appropriate outcome feedback measures that may be used to improve future decisions.

Role of Information Technology

Note that information technology plays a key role in many of the above types of assistance. For example, publicly available electronic data bases may be a valuable source of information, both in defining problems and in measuring model parameters and independent variables. Computerized decision models may be used to model the problem and computerized sensitivity analysis may be used to evaluate alternatives and tradeoffs. Automated approaches may also be used to monitor implementation and provide feedback.

Competency Requirements

These assurance service opportunities require competencies in the following areas:

- Understanding of decision processes and skills in decision modeling, including modeling with the aid of computers.

- Understanding of measurement theory and skills in defining and constructing measures.

- Understanding of business processes and other economic processes underlying decision making activities.

- Understanding of environmental factors and how they may affect decision outcomes.

- Understanding of limitations of various data and "data about data" that enter into user decision making activities.

- Understanding of sensitivity analysis and its role in examining information alternatives.

- Understanding of information technology that supports all aspects of present day decision-making processes.

Although practitioners currently possess many of these competencies to some degree, additional training will be needed in all of these areas in order to effectively deliver these types of assurance services.

Defining Relevance Enhancement Services

Several relevance enhancing activities have been described, and they come under the general concept of an information intermediary who understands decision processes and who specializes in assessing and reporting on the relevance (and reliability) of information used in those processes. But that is a very general concept. To arrive at a more precise definition, concepts of relevant information must be explored. Consider the following definition of relevance developed by FASB:[22]

> ***Relevance***: The capacity of information to make a difference in a decision by helping users to form predictions about the outcomes of past, present, and future events or confirm or correct prior expectations.[23]

The FASB's definition is future oriented, which certainly agrees with the ideas presented in this report. Decision making has been treated as a forward-looking activity, and relevant information for decision making has to do with making predictions and forming or revising expectations.[24] The FASB states:

> [I]nformation is relevant to a future situation if it can in some way reduce the uncertainty about the situation.[25]

The FASB views relevance, just like reliability, as a matter of degree. To the Board, relevance is quantifiable, and the greater the relevance of information, the more useful it is in making decisions. In addition, since relevance is a matter of degree, tradeoffs may be made between relevance and reliability:

> Although financial information must be both relevant and reliable to be useful, information may possess both characteristics to varying degrees. It may be possible to trade relevance for reliability or vice versa, though not to the point of dispensing with one of them altogether.[26]

This view of relevance is also consistent with the thrust of this report. There are matters (assertions) that may be completely reliable (e.g., the cost in historical dollars of land purchased by an entity in 1975), but utterly irrelevant to a particular decision problem (e.g., whether to use the land to pursue alternative A or B). On the other hand, there may be matters involving the same decision problem that are highly relevant (e.g., the opportunity cost associated with land usage) but lacking in reliability.

Sensitivity analysis of various information alternatives provides a means for measuring the degree of relevance of information. Thus, when reviewing a set of information alternatives using sensitivity analysis, the particular information alternative to which the optimal solution is most sensitive is the most relevant information alternative.

Finally, the FASB defines relevance in terms of the capacity of information to make a difference rather than in terms of the difference actually resulting from use of the information. The phrase "capacity to make a difference" means that the information is logically connected to the decision problem under consideration — a property that the FASB includes under the heading of "decision-specific" qualities of information. In contrast, the phrase "the difference actually resulting" means that the information is actually used by a decision maker in solving a problem, i.e., the decision maker explicitly recognizes and understands the relevance of the information and uses it. The FASB includes this "understandability" notion under the heading of "user-specific" qualities of information. The FASB states:

> Information may not be useful to a particular user even though it is relevant to the situation that the user faces. Information that cannot be understood, like information that is not available, may be relevant, but its relevance will be wasted because its capacity to make a difference cannot be utilized.[27]

FASB's distinction between "decision-specific" vs. "user-specific" qualities of information provides a means for drawing a line between those qualities of information that fall within the purview of standard setters in making choices among alternative accounting information (i.e., the decision-specific qualities) and those qualities that fall outside the boundaries of standard setting deliberations (i.e., the user-specific qualities). The FASB explicitly recognizes these boundaries as follows:

> In the last analysis, each decision maker judges what accounting information is useful, and that judgment is influenced by factors such as the decisions to be made, the methods of decision making to be used, the information already possessed or obtainable from other sources, and the decision maker's capacity (alone or *with professional help*) to process the information. The optimal information for one user will not be optimal for another.[28]

"With professional help" are key words. The logic of the paragraph implies that professional help can transform information that is irrelevant into information that is relevant, transform information that is decision-specific and not user-specific into information that is both decision-specific and user-specific. The relevance-enhancing activities described above based on Table 2 are consistent with this logic, in which professional help can make information that would otherwise be irrelevant become information that is relevant.

The following definition is based on the observations on FASB concepts and on the analysis of decision models:

> Relevance enhancement is an assurance service involving assistance to a decision maker in improving the identification or use of information or models in making decisions.

The "assistance" involved in this assurance service has been described above for each step of a decision process, namely, assistance in problem definition, assistance in decision model selection/specification, etc.

Relevance Enhancement Involved in New Assurance Services

All six new assurance services developed by the Committee include relevance enhancement opportunities, such as the following:

- ***Risk assessment.*** Assistance in identifying external and internal environmental information useful in developing comprehensive profiles of risk.

- ***Business performance measures.*** Assistance in defining appropriate measures of performance that are linked to entity objectives; assistance in sourcing/finding external benchmarking information that may be useful in evaluating performance.

- ***Systems reliability***. Assistance in defining criteria by which systems reliability will be judged.

- ***Electronic commerce.*** Assistance in defining criteria by which electronic commerce systems and tools will be evaluated.

- ***Health care performance measures.*** Assistance in identifying attributes of quality of care that are of concern to consumers; assistance in defining/developing quality measures.

- ***ElderCare Plus.*** Assistance in identifying attributes of care-giver services that are of concern to the elderly; assistance in defining/developing measures of quality.

Pursuit of Relevance Enhancement Assurance Service Opportunities

Relevance enhancement assurance service opportunities arise naturally in situations in which assurers are in close communication with individual user/decision makers (or a group of decision makers), which permits the assurer to gain an understanding of user decision processes and assist in the improvement of those decision processes. In short, relevance enhancement opportunities will grow as assurers move closer to decision makers (become more customer focused) and provide tailored assurance to those decision makers. To do this, practitioners need to:

- Adopt a customer (decision maker) focus.

- Increase knowledge of user decision processes (see Competency Requirements).

Role of AICPA

The AICPA could provide assistance to practitioners who wish to pursue relevance enhancement assurance opportunities by doing the following:

- ***CPE.*** Develop courses to assist practitioners in improving competencies in the areas identified above.

- ***Case studies.*** Develop a series of case studies that illustrate assurer involvement in user decision processes. Cases are needed that deal with a broad range of decision models, decision making activities, and assurer assistance.

- ***Practice aid.*** Develop a practice aid to assist practitioners in identifying relevant information at each stage of a decision process.

Notes

1. The practitioner's role in addressing relevance issues is viewed as complementary to the standard setter's institutional role, which is not expected to be diminished. Indeed, as user decision-making needs for information continue to expand into new areas, standard-setting processes are expected to follow.

2. Although "due process" has been explicitly designed into the institutional approach with the intention of soliciting widespread user participation, such participation has not generally occurred.

3. The Appendix illustrates ideas by presenting an example of relevance enhancement involving the problem faced by an elderly person in choosing among alternative living arrangements.

4. See: Ackoff, R. L, et. al., *Scientific Method* (1962), ch. 2.

5. A decision maker may not realize that alternatives exist, in which case he/she chooses an alternative (the status quo) by default.

6. See: Demski, J. S., *Information Analysis* (2nd ed., 1980), ch. 3.

7. A solution is "optimal" in the sense that (a) it is consistent with the decision maker's beliefs about all model elements and (b) it maximizes the decision maker's utility, given those beliefs.

8. Note that the conceptual formulation assumes that the decision maker's uncertainty is confined to the environment and to various possible future states that might occur. This does not mean that the other specifications in the model — outcomes, utility assessments, and alternatives — have been done without error. It simply means that the decision maker, given his or her current state of knowledge, is not aware of possible errors in those other specifications and hence does not entertain the need for revising any of them. Of course, if an advisor pointed out (correctly) that errors exist in those other specifications, such "advice" would represent relevant information for the decision maker. See Demski, ch. 3.

9. Churchman, C. W., et al, *Thinking for Decisions* (1975), p. 287 (emphasis added).

10. See: Demski, ch. 4.

11. See: Simon, H. A., *The New Science of Management Decision* (2nd Ed., 1977), p. 40. Computerized decision models often play an important role in "inventing" alternatives by systematically exploring a "solution" space.

12. Ackoff, p. 141-142 (emphasis added).

13. Ackoff, ch. 5.

14. "Data about data" provides information to a user that would be helpful in interpreting particular data, such as the definition of the data, key assumptions underlying its measurement, and its reliability.

15. See Demski, ch. 4.

16. For useful tests of model bias and reliability, see Ackoff, ch. 13.

17. An *information intermediary* is any person or group standing between the preparer and user/decision maker whose role is to add value to the information by improving its relevance, reliability, or understandability for the user.

18. Note that, at each step in the decision making process, information used in previous steps is also assumed to be available for use in the present step. Thus, the information shown in this column is *cumulative*.

19. Decision makers often have difficulties specifying their objectives accurately. They are often more certain about what they will do or will not do than about why they are so inclined. Also, naming an objective is one matter; developing a measure for the degree to which a particular objective is achieved is another, of often very complex matters involving definition and measurement. Finally, when two or more objectives are involved, difficult problems are involved in developing tradeoff (transformation) functions.

20. A decision maker often will have difficulty in this task. What's needed is an analysis that identifies all variables that may significantly impact the outcomes of the problem and a sorting of those variables into those under (or partially under) the control of the decision maker (i.e., decision variables) vs. those not under the decision maker's control (i.e., environmental factors or independent variables).

21. The decision problem must be viewed in the context of the system whose boundaries circumscribe the set of environmental factors that can potentially affect outcomes, i.e., system boundaries are defined in such a way that the system includes all relevant factors. Factors outside the system boundaries, by definition, are irrelevant to the problem at hand.

22. Statement of Financial Accounting Concepts No. 2, Qualitative Characteristics of Accounting Information (FASB, 1980); the definition appears in the Glossary of Terms.

23. FASB defines "event" as a happening of consequence to an entity and "outcome" as the effect or result of an event or series of events (par. 47). Also note that FASB considers *timeliness* to be an ancillary aspect of relevance: "Timeliness alone cannot make information relevant, but a lack of timeliness can rob information of relevance it might otherwise have had (par. 56)."

24. The focus of this report and the FASB definition is on decisions that lead to action. People often "decide" whether they approve or disapprove of all sorts of things without taking action as a consequence. It is the focus on decisions that lead to action that channels the reasoning toward the future.

25. FASB, par. 52.

26. FASB, par. 42.

27. FASB, par. 39.

28. FASB, Summary of Principal Conclusions (emphasis added).

Appendix — Choosing Elder Living Arrangements

This case considers the problem faced by elderly persons whether to remain in their own home or sell it and move to alternative elderly living arrangements, which range from independent living units, to assisted care units, to full-fledged nursing care units. The problem is important because:

- An increasing segment of the population will be faced with this decision during the next ten years as the U.S. population continues to age.
- The decision is highly significant, is generally loaded with emotion, and is often addressed by people who are not well informed of the alternatives and/or are not in a position to judge information dispassionately.
- There are a large number of options available involving significant tradeoffs between economic and various personal quality of life considerations which makes evaluation difficult.
- The decision is often postponed until a crisis arises (death of a spouse or serious injury or illness).

The remainder of the case walks through the various steps in the decision (see the steps outlined in The Role of CPAs in Enhancing Information Relevance) and identifies the "relevance enhancement" role of an ElderCare Plus practitioner.

1. ***Assistance in problem definition.***

   The case problem arises as a result of Gloria Johnson's recent hospital emergency (see below). Gloria and her children, Jim and Sally, have contacted an ElderCare Plus practitioner to discuss the matter of Gloria's present and future long term living and health care needs and, in particular, whether alternative living arrangements should now be considered. The practitioner develops the following information based on conversations with the client:

   - *The crisis*: Gloria Johnson is 71 years old and has recently lost her husband of 47 years. She owns a home in Tucson, Arizona. Three weeks ago she fell and broke her hip, which required surgery. After five days in the hospital, she moved to a nursing home where she will reside for 6 weeks for convalescence and physical therapy. Her two children both live on the east coast (New York City and Philadelphia). They are very concerned about Gloria's well-being and worried about her move back home after her stay in the nursing home. They both feel that now is the time to consider alternative living accommodations for Gloria.

- *Financial status*: Gloria is financially secure. She owns her home and has an investment portfolio currently valued at $850K. Her portfolio and social security provide a monthly cash flow in excess of her current needs, and the excess is reinvested monthly.

- *Insurance coverage*: Gloria is covered by Medicare and also has secondary insurance that covers most of the gap between actual medical and drug expenses and Medicare reimbursements. She presently has no long-term care insurance.

- *In-home health and community health services currently used*: None.

- *Personal interests*: Gloria is active in three local charities and attends weekly meetings of each of these organizations. She is a skilled painter (water colors), and spends much time pursuing this activity on a weekly basis. For exercise, she swims on a daily basis and also takes frequent walks in the park across from her home (both activities will be affected by the hip injury). Gloria has a wide circle of friends and entertains them frequently in her home.

- *Location preferences*: Gloria has a strong desire to remain in Tucson.

- *Specific physical/health needs*: In spite of her hip injury, Gloria is expected to remain ambulatory. However, she may need the use of a walker for support, and she may also have some difficulty putting on stockings and shoes. She will also no longer be able to drive her car. Finally, exercise activities may require assistance.

- *Desired life style*: Gloria recognizes that her hip injury is a significant setback, but she wants to remain as independent as possible after her recovery and dismissal from the nursing home.

2. ***Assistance in decision model selection/specification.***

- *Objectives*: In discussions with the client, the practitioner identifies the following objectives as being relevant to Gloria:
  - *Independence*. Maintain as much independence as possible.
  - *Security*. Reside in a safe, secure environment.
  - *Friends*. Maintain frequent contacts with friends.
  - *Activities*. Continue pursuit of community interests, hobbies, exercise program (in modified form because of the hip injury).

- *Space/facilities.* Reside in quarters that provide adequate space — facilities for painting, entertaining guests (including meal preparation), swimming and other exercise activities.
- *Cost.* Meet a reasonable budget constraint.

- *Alternatives*: The practitioner's knowledge of elder living arrangements provides the list of alternatives show in Table A1 below. Through discussions with the client, that list is boiled down to the following alternatives that Gloria believes are feasible for her:
  - *Alternative 1.* Remain in home and draw increasingly upon various in home health and community health services as the long-term health care solution (see Table A2 below for a comprehensive list of in home health and community services possibilities).
  - *Alternative 2.* Select a residential care facility (RCF) that also has available assisted care and nursing care facilities as future long term care options.
  - *Alternative 3.* Select a continuing care retirement community (CCRC) as the long term care solution.

- *Decision model*: The practitioner believes that a decision model involving a simple pros and cons analysis will be appropriate for Gloria's purposes. The model will assign high, medium or low ratings to the client's various objectives (see above) for each alternative, and the client will subjectively weigh those considerations in selecting the appropriate alternative course of action. The model structure is as follows:

Objectives \ Alternatives	Alt. 1	Alt. 2	Alt. 3
1. Independence			
2. Security			
3. Friends			
4. Activities			
5. Space/facilities			
6. Cost			

3. *Assistance in determining decision model information requirements.*

The practitioner assists the client in establishing the following definitions of measurements of the objectives (independent variables):

- *Independence*. A living arrangement will receive a high, medium, or low rating to the extent it allows Gloria to continue to pursue the lifestyle to which she is accustomed, taking into account her recent injury.

- *Security.* A living arrangement will receive a high, medium, or low rating to the extent it provides Gloria with a secure and safe environment.

- *Friends.* A living arrangement will receive a high, medium, or low rating to the extent it permits Gloria to continue her current friendships (relevant living arrangement features include location, common meeting areas, functions of interest to friends, eating facilities).

- *Activities.* A living arrangement will receive a high, medium, or low rating to the extent it permits Gloria to continue her current activities and also pursue a range of new activities.

- *Space.* A living arrangement will receive a high, medium, or low rating to the extent of its total square footage of private living space and the desirability of shared spaces, such as pool, exercise room hobbies room, and entertainment rooms for larger social functions.

- *Cost.* A living arrangement will receive a high, medium, or low rating to the extent of its total monthly out-of-pocket cost expected to be incurred in each alternative living arrangement.

4. ***Assistance in sourcing/finding information.***

The practitioner assists the client in making assessments of objectives 1 through 5 for each alternative based on Gloria's and her children's visits (accompanied by the practitioner) to various facilities. The practitioner measures the cost objective (6) by accumulating relevant cost information on a monthly basis for each alternative and ordering the results from high to low.

5. ***Assistance in information analysis/interpretation.***

The practitioner assists the client in sorting out the information collected with respect to objectives 1 through 5 in order to avoid "double counting" in the various ratings (e.g., allowing a single factor present at a particular facility to affect both the security and independence ratings).

6. ***Assistance in evaluation of alternatives and tradeoffs.***

Through a series of "what if" questions, the practitioner assists the client in understanding how the following decision problem elements, among others, "drive" the decision:

- The impact of altering the subjective weights that Gloria has placed on the various objectives in evaluating each of the three alternatives.

- The impact of altering one (or more) of the high, medium, or low ratings that Gloria has assigned to a particular objective for a particular alternative.

- The impact of viewing the entire problem in terms of significant, hypothetical changes in Gloria's present set of physical and psychological needs.

7. ***Assistance in implementation.***

The practitioner's implementation role depends on the alternative selected by the client. If the client decides to remain in her home, the practitioner might assist in the selection of various in-home health and community services needed by Gloria. If the client decides to make a move, the practitioner might assist in the selection of the new facility.

8. ***Assistance in outcome feedback.***

Regardless of the alternative selected, the practitioner may assist Gloria and her children in monitoring and reporting on the quality of care being provided by various care givers (in the home, through community services, or at a new living facility).

Table A1
Elderly Living Arrangements

- ***Aging in place.*** Involves growing older without having to move from one's residence (70 percent of seniors spend the rest of their life in the residence where they celebrated their 65th birthday).

- ***Granny Flats.*** Seniors share a single family home with another person or family. The owner of the home may be the senior or the sharing party.

- ***Active senior communities.*** Communities restricted to the over 55 (or 62) that provide services catered to the active senior (golf, tennis, swimming, exercise rooms, and various clubs and interest groups).

- ***Seniors Only Apartments.*** Apartments restricted to people over 55 (or 62) who are able to live independently — no community programs offered.

- ***Residential care facilities.*** Independent living in a board and care home — room, board, social, and recreational programs are provided.

- ***Assisted care facilities.*** Provide services included in residential care plus assistance in bathing, dressing, and other non-medical activities (may distribute or monitor taking of medications).

- ***Skilled (full service) nursing care facility.*** Provide 24-hour medical care services.

- ***Continuing care retirement communities.*** For an up-front investment and ongoing monthly fees, all needs of a resident are met, including room and board, personal and health care, and social activities.

Table A2
In-Home Health Care and Community Service Possibilities

In-home health care and community services vary from routine services for those who are in reasonably good health and can live independently to intensive care services for those who are chronically ill:

- Visiting nurses
- Physical therapists
- Home health aids
- Companionship
- Homemakers, light housekeeping, laundry
- Assisted transportation, shopping and errands, escorts to appointments
- Bathing, grooming, dressing
- Meals on wheels
- Intravenous infusions
- Nutritional supplements
- Supplemental oxygen
- Monitoring devices
- Senior day care

Assurance Independence

The concept of assurance independence should be broad enough to cover all independence situations within the scope of known and potential assurance services. Such services include audits, other attest services, and all other services that fit the definition of assurance services established by the Committee:

> Assurance services are independent professional services that improve the quality of information, or its context, for decision makers.

As explained in Assurance Services — Definition and Interpretative Commentary, the words "improve the quality of information, or its context" mean that the primary purpose of the service is to accomplish such improvement. In contrast, in an SAP software consulting engagement, the primary purpose is to implement SAP, even if information quality is nevertheless improved.

Thus far the Committee has identified quite a few services and explored in some depth six of them, but the potential number of assurance services is unlimited. That prospect creates the need for a definition of assurance independence.

Defining Assurance Independence

The new definition would be applied only to assurance services that are not covered by Statements on Auditing Standards (SASs), Statements on Standards for Attestation Engagements (SSAEs), and Statements on Standards for Accounting and Review Services (SSARS). Requirements for audit and attest independence currently in force would remain in force and applicable to audit and attest engagements within the broader set of assurance engagements. Nevertheless, the new definition is consistent with independence concepts that are now applicable. Consistency was ensured by extrapolating the new definition from the basic concepts of audit independence (see Appendix). Without such consistency the definition could not achieve the goal of embracing all assurance services.

The definition is given below:

> Assurance independence is an absence of interests that create an unacceptable risk of material bias with respect to the quality or context of information that is the subject of an assurance engagement.

A "material bias" exists if a reasonable person with knowledge of the assurer's interests in the information or context would conclude that the assurer's objectivity is impaired.

"Information that is the subject of an assurance engagement" includes the output of information systems that are the subject of assurance engagements. For example, in an engagement to evaluate the reliability of a system that produces financial statements, the assurer would have to be independent with respect to the financial statement information. To take another example, in an assurance engagement to evaluate the reliability of a system that produces customer satisfaction information, the assurer is independent if he or she has no interest that could create an unacceptable risk of material bias with respect to the quality or context of the customer satisfaction information.

Assurance independence refers only to the absence of interests that can create material bias in the sense of partisan judgment, not to the absence of interests that are consistent with impartial judgment and impartially presented information. Interests that prejudice an assurer toward the truth and usefulness of information are consistent with assurance independence.

Assurance independence is separate from objectivity and integrity. The distinctions and relationships are explained in the following paragraphs.

Objectivity is an intellectual quality. Assurance independence, as defined above, is a condition that helps an assurer use the level of objectivity he or she has. Assurance independence does not mean the independent person is highly objective, only that he or she has a greater likelihood of retaining whatever level of objectivity he or she brings to the engagement. Because it is an intellectual quality, objectivity can vary. A primitive who believes in magic and sees it at work almost everywhere has a smaller measure of objectivity than a scientist schooled in empiricism and practicing its methods daily. If assurers by hiring, training, and professional culture have a good deal of objectivity, the public is better served than if assurers have less than the ordinary measure among citizens at large.

Integrity is a moral quality that, like independence, prevents bias from interfering with objectivity. An assurer can have integrity with or without interests that compromise independence by threatening to create bias. Brilliant criminals are capable of objective observations and communications, but do not communicate objectively when their immorality leads them to do otherwise. Such people have a low level of integrity but more than the average measure of the intellectual quality called objectivity. Taken to its logical extreme, an assurer with absolute integrity and awareness of the presence of potential sources of bias would perform assurance work with the same level of objectivity whether or not he or she had such interests. Integrity would protect the assurer's objectivity from compromise.

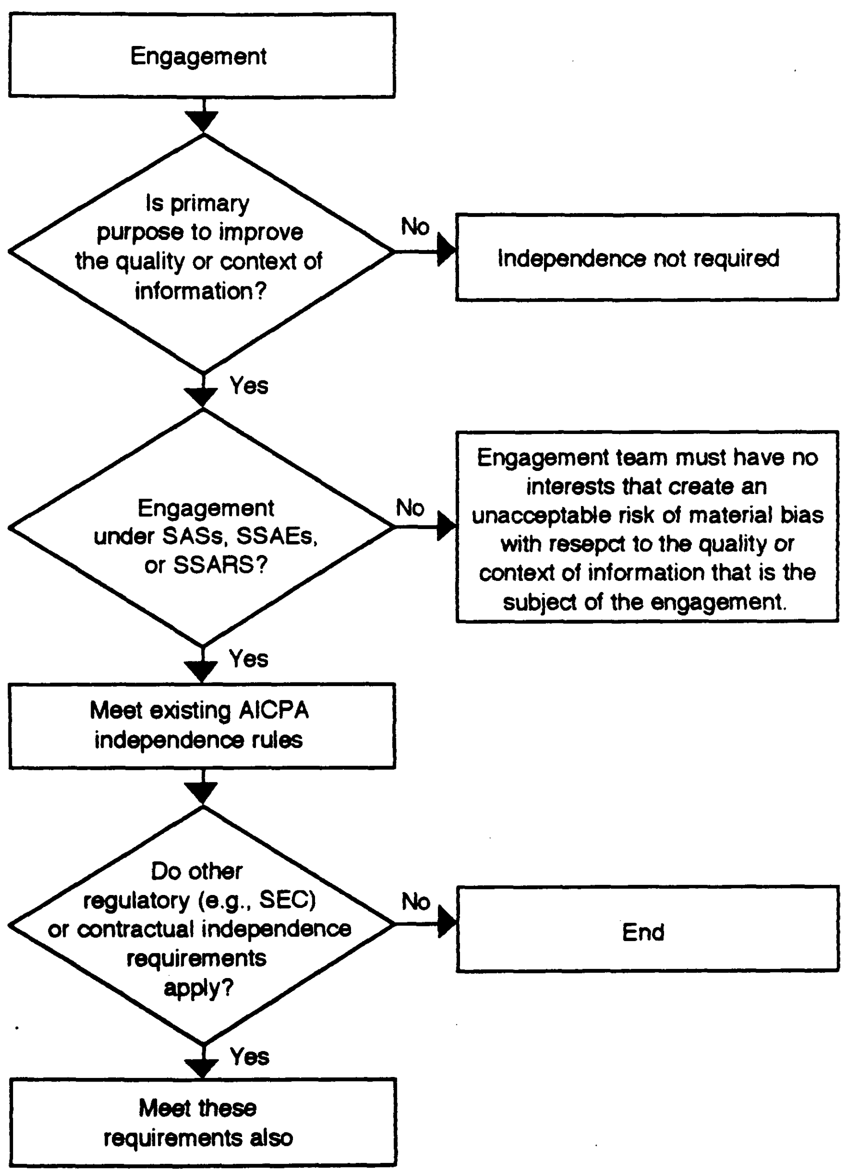
To facilitate discussions of assurance independence, it is useful to divide the types of interests that could damage that independence into two broad categories: economic interests and psychic interests. Ownership of an auditee's stock is an economic interest. A brother who is an auditee's CEO is a psychic interest. However, a single circumstance can have characteristics of both categories (an assurer who makes managerial decisions for a client has both a psychic interest and an economic interest — continued employment — that could affect objectivity). And a single assurer can have more than one type of interest that can create bias (e.g., share ownership and a brother in client management).

Determining Assurance Independence

Assurance independence should be determined by the reasonable or prudent person concept. Under this concept, one tries to determine whether a reasonable person "having knowledge of all the facts and taking into consideration normal strength of character and normal behavior under the circumstances" would conclude a relationship (interest) poses an unacceptable risk of material bias. (The quoted words are from ET§52.09 of the 1987 AICPA code of professional ethics. The reasonable person concept is also applied in the current ethics code — for example, ET§101.08, under the head "Effects of impairment of independence" and ET§101.10, Interpretation.) In other words, the risk must be so significant that the reasonable person finds it unacceptable. No one can know the actual risk because it varies depending on the assurer's levels of integrity and objectivity and depending on the interests in question.

Of course, in order to apply the concept, one must identify whether an engagement is one of the new types of assurance services. The following decision chart illustrates the process.

Independence Rules for Assurance Engagements



The first question is whether the engagement's primary purpose is to improve the quality or context of information for decision makers. If it is not, it is not an assurance service, and independence would not be required. If the answer is yes, one would proceed to ask whether the engagement service is covered by the SASs, SSAEs, or SSARS. The question would separate new types of assurance services from services that should be governed by the three sets of standards just cited.

If the service is not covered by the SASs, SSAEs, or SSARS, the engagement team would be subject to the principle in the assurance independence definition — i.e., the team would have to meet the independence rule of having no interests that create an unacceptable risk of material bias with respect to the quality or context of information that is the subject of the engagement. The principle is applied to the engagement team, rather than reaching to every individual in the firm, in order to avoid impracticable situations that do not affect the public interest.

As the chart illustrates, engagements that are covered by the SASs, SSAEs, or SSARS must meet existing AICPA independence rules. The remainder of the decision chart merely identifies engagements that are also subject to other *independence requirements* (public-sector, private-sector, or contractual) and acknowledges that compliance is required.

Laws and Regulations

Assurance independence should be required by the AICPA for all assurance services performed by members. The public should be protected from nonindependent "assurance" services, and should have reason, in the form of the requirement, to be confident that the protection is in place. In addition, the requirement would help brand the service, which could help commercially.

There is no reason to put assurance independence requirements in non-AICPA laws and regulations. There will be no monopoly on nonaudit assurance services and no requirements to purchase them.

Independent Preparation and Supply of Information

Information can be independently developed, assembled, and delivered. This would be the case whenever the assurer had no interest in the supplied information that would create an unacceptable risk of material bias. Merely preparing information does not create an interest inconsistent with desiring its accuracy, being objective, and retaining integrity, and the parties interested in the quality of the information would benefit from its independent preparation (assuming the assurer's competency, integrity, and objectivity and the client's need for the information).

Considering current assurance services, people appear to assume that preparation can be performed independently. When ballots are counted by an independent auditor — say, by Price Waterhouse at the motion picture academy awards — the independent preparation of the information — i.e., the count — is what the client is paying for, and all associated parties understand that. When some clients interviewed by the Committee said that they would appreciate risk analysis and types of monitoring data from auditors, it was partly because they believed the auditors would be independent preparers of the information. There is no reason to believe they would want the analyses and monitoring data independently audited.

Concepts Applied to Services Already Identified by the Committee

Assurance services in electronic commerce and health care performance_measurement will be attest services (reporting on a report preparer's compliance with measurement standards) or measurement reports in which the assurer develops and supplies the information. The same is true of reports on the information systems reliability, risk assessment, and business performance measurement. Attest situations would be covered by existing independence rules. Independent preparation of information for decision making was discussed in the previous section.

ElderCare Plus assurance can involve a mix of assurance services, consulting services (e.g., establishing standards of care with a care provider), and direct services (e.g., paying the client's bills, accounting for the client's income). The assurance services consist of monitoring conditions, examining evidence of performance by care providers, and reporting periodically on the level of care to concerned parties. In this work, the assurer would be independent if he or she had no interest in the report's findings that could cause an unacceptable risk of material bias. Assurance independence would not be required for the other services in the mix. Complicated situations might arise from the interplay of the different services. If the combination of services impairs assurance independence, the assurance service could not be performed. For example, if the selection of a doctor is based on an advisory report by the assurer that cites credentials and gives alternatives and the decision to hire the doctor is made by the patient and/or a concerned relative, that consulting service would not lessen the assurer's independence in reporting. However, if the assurer made all the care decisions, independence would be lost. Situations might also arise where independence is impaired with respect to some types of information, but not others within the same engagement. In such situations, the assurer could disclose the impairment and provide assurance with respect to information where independence is unimpaired.

If considered for adoption by the AICPA, the assurance-independence definition would undoubtedly receive intensive examination. An important direction for such research would be the application of the definition to situations where the information that is the subject of the assurance engagement does not affect an investment vehicle readily available to the assurer, such as equity shares. If the assurer has a financial interest in the shares of the entity, any published data on the entity's performance or condition, whether or not financial-statement data, would affect the value of the shares. But the full population of future assurance engagements is unlikely to be analogous in this way to financial-statement audits.

For example, consider information about a production process or a data-processing system prepared by an assurer for management's internal use. How could the assurer's financial interests create an unacceptable risk of material bias with respect to the information that is the subject of such an engagement? The answer is not at all, barring improbable circumstances. Ownership of shares in the entity would not in this case be a potentially bias-creating condition.

Appendix

Consistency Between the Assurance Independence Definition and the Concepts Underlying Audit Independence

The definition of assurance independence derives from the basic concepts underlying audit independence. That is sufficient to make it consistent with the concepts underlying attest independence. Standards for attest services are both broader than auditing standards and intended to be completely consistent with them. "A natural extension of the ten generally accepted auditing standards" is how the introduction to the attestation standards puts it.

There is no official definition of audit independence. Apart from unofficial texts, the current concept comes from the independence rules in the ethics code and a passage in GAAS (AU§220). The definition of assurance independence was therefore extrapolated from the fundamental assumptions embedded in the authoritative statements on audit independence.

AU§220 treats independence as a mental attitude and goes on to treat that attitude in ways that indicate what is being referred to is objectivity. This conclusion derives from the descriptive language: "be[ing] without bias," "judicial impartiality," and "intellectual honesty." The standards also call for auditors to "avoid situations that may lead outsiders to doubt their independence," but this is not treated as required for being independent. It is treated as a separate concept. AU§220.03 explicitly bases the stricture on the need to have "the general public maintain confidence in the independence of independent auditors." In other words, it pertains only to the practitioner's reputation for independence.

AU§220.03 defers to the AICPA's ethics code for the precepts that guard against the presumption of loss of independence. Like AU§220.3, the ethics code bars lapses in appearance of independence, though it does not either explain that prohibition or relate it to the precepts. Unlike AU§220, however, the ethics code treats independence as separate from objectivity. Rule 101 requires independence, but Rule 102 requires objectivity and integrity. Moreover, Rule 102 prohibits conflicts of interest, but the precepts for independence in Rule 101 deal with conflicts of interest. Independence is considered impaired if the CPA has direct or material indirect financial interests in the audited enterprise or any of its officers, directors, or principal stockholders. Independence is similarly considered impaired if the CPA is connected with the audited enterprise as promoter, underwriter, voting trustee, director, officer, member of management, or employee.

In sorting this out, it helps to follow the lead of AU§220.03 and defer to the ethics code, which has a far more detailed treatment of the issues. Its rules define professional behavior on independence, whereas AU§220, a single page, does not go much beyond commanding independence. For practical purposes as well as out of respect for AU§220's deference, the fundamental assumptions about independence must be sought in the ethics code.

The code's seeming paradox about conflicts of interest can be resolved this way. Both objectivity and independence are required, and conflicts of interest are the enemy of both. If independence (in its purest form) is considered the absence of conflicts of interest, independence allows the auditor to act with objectivity. This appears from the text to be consistent with the authors' underlying concerns and objectives.

For example, consider the language in this passage on the effect of litigation on independence (emphasis added): "In order for the member to fulfill his obligation to render an informed, *objective* opinion on the client company's financial statements, the relationship between the management of the client and the member must be characterized by complete candor and full disclosure regarding all aspects of the client's business operations. In addition, there must be an absence of bias [i.e., objectivity] on the part of the member so that he or she can exercise professional judgment on the financial reporting decisions made by the management. When the present management of a client company commences, or expresses an intention to commence, legal action against the member, the member and the client management may be placed in adversarial positions in which the management's willingness to make complete disclosures and *the member's objectivity* may be affected by self-interest. For the reasons outlined above, independence may be impaired whenever the member and the member's client company or its management *are in threatened or actual positions of material adverse interests* by reason of threatened or actual litigation." (ET§101.08).

It follows that assurance independence should be based on an absence of conflicts of interest that interfere with objectivity in the performance of the engagement. The concepts of independence, objectivity, and integrity would remain separate, as they are in the ethics code.

The conflicts of interest prohibited by the ethics code emphasize relationships with the audit client. This is not surprising considering the fear that management's interest in reporting favorable performance will bias its accounting. However, the source of potentially compromised audit independence can be described more precisely.

For purposes of independence, the auditor's objectivity does not mean objectivity in general. It means objectivity with respect to the financial statements of the auditee. Similarly, management's only relevant potential conflict of interest pertains to the financial statements. No other bias matters in these situations, so no other interest that could create bias matters. When the ethics code prohibits interests in the client, it does so in order to prevent the auditor from having a potential bias with respect to the client's financial statements.

In assurance engagements, the analog of the financial statements is the information that is the subject of the engagement or the system that produces such information. Focusing on this information is consistent with the concept of audit independence, but explicitly opens the concept of assurance independence to interests of any sort that can cause bias with respect to the information.

New Assurance Services — Linkages to a Client's Business Value Chain

Introduction

A comprehensive business model can help the CPA understand the client better, identify new services for the client, and help sell those services when used to demonstrate their need. The Special Committee on Assurance Services has used the value chain model, based on the work of Michael Porter,[1] to serve this purpose. Practitioners will be substantially empowered if they internalize the concepts in such a business model, which they can use to 1) identify and analyze client problems, 2) identify needs for information and related assurance, and 3) explain the service needs to clients.

This section identifies linkages between the new assurance services proposed by the Committee and the various value-creating activities within a client's value chain.[2] The value of these new assurance services is derived from the value contributed to the client's activities, which eventually translates into value-added to the client's customers.

The section begins by briefly describing a "value-chain" model of a business enterprise and indicates how this model fits into the larger "value system" that includes the entity's relationships to outside parties. Next, the section identifies key strategic information that the business enterprise uses in planning and controlling its value-creating activities. Improving the quality of this strategic information is at the heart of the Committee's new assurance service proposals. Finally, the section identifies various roles that the practitioner might play in enhancing the quality of an enterprise's strategic information. Higher quality information should lead to better decisions, which, in turn, should lead to better outcomes (i.e., increased value-added to the client's customers and increased shareholder value).

A Value-Chain Model of a Business Enterprise

Value to a customer is greater than or equal to the amount a customer is willing to pay (revenue)[3] for a product or service[4] provided by a business enterprise. In order to bring value to customers, business enterprises engage in a set of "primary" value-creating activities, which involve the operations, marketing, logistics (inbound and outbound), and service of products. In addition, enterprises engage in a set of activities (procurement, human resource, technology, and infrastructure) that support the primary activities. The first figure below identifies five primary and four support activities that constitute a complete set of value-creating activities within a business enterprise. These nine activities are described further in the table below. In the long run, an enterprise is successful to the extent that the total value it creates for customers in all of its value-creating activities exceeds the total costs of all resources consumed by those same activities.

Table
Primary and Support Activities

Primary:

Inbound logistics. Activities associated with receiving, storing, and disseminating inputs to the product.

Operations. Activities associated with transforming inputs into the final product.

Marketing and sales. Activities associated with providing a means by which buyers can purchase the product (service) and inducing them to do so.

Outbound logistics. Activities associated with collecting, storing, and physically distributing the product to buyers.

Service. Activities associated with providing service to enhance or maintain the value of the product in the hands of the buyer.

Support:

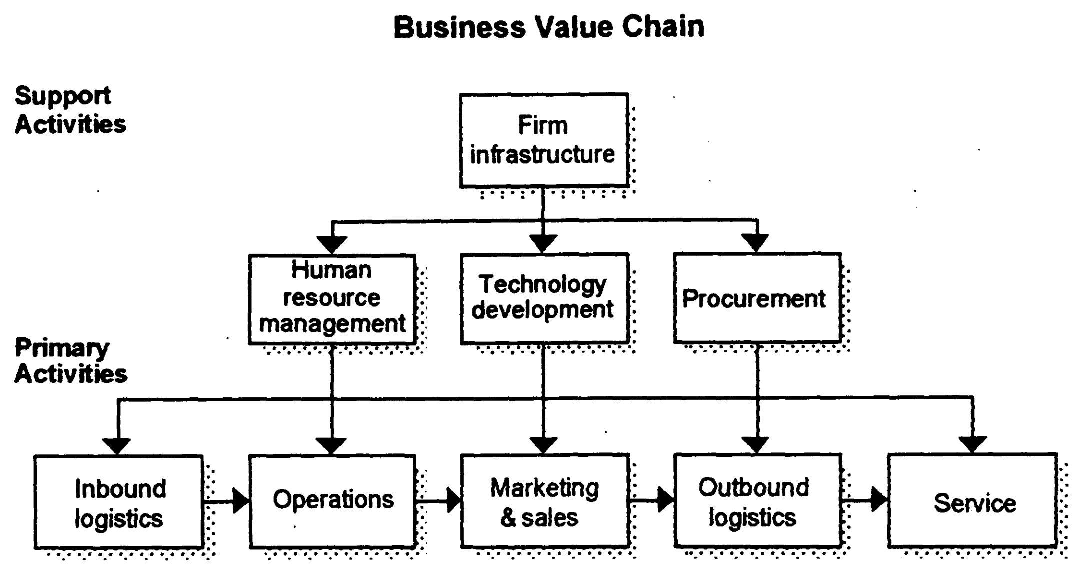
Human resource management. Activities associated with recruiting, hiring, training, development, and compensation of all types of personnel.

Technology development. Activities associated with efforts to improve product(s) (services) and processes.

Procurement. Activities involved in the purchase of inputs used throughout the entity's value chain.

Firm infrastructure. Activities involved in general management, planning, finance, accounting, legal, government affairs, and quality management.

Adapted from Porter, M. E. pp. 39-43.

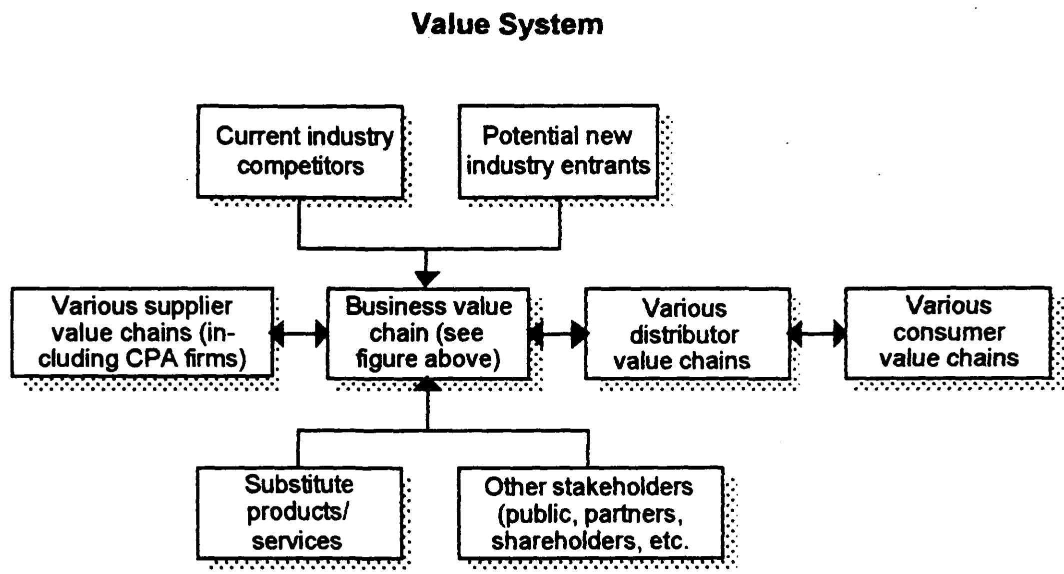


Adapted from Porter, M. E., Figure 2-2, The Generic Value Chain, p. 37.

The "value-chain" is customer-focused. All activities are viewed from the standpoint of their ultimate impact on value to the customer. The customer focus is a benchmark for performance measurement throughout the enterprise (see further below).

Value Chains Contained in a Value System

As shown in the next figure, an individual business enterprise operates within a larger value system involving numerous other firms and individuals (including CPA firms and individual practitioners), all of which may have an impact on value delivered to the ultimate consumer. For example, a particular enterprise receives inputs from suppliers and may deliver outputs to intermediaries (distribution channels) that stand between the enterprise and the ultimate consumer. The quality of supplier inputs generally has a significant impact on the quality of the final product. Likewise, the effectiveness of a distributor's activities affects the value ultimately delivered to the consumer. Hence, an individual enterprise can impact value delivered to ultimate consumers, not only by managing its internal activities, but also by managing its external relationships.



Adapted from Porter, M. E., Figure 2-1, The Value System, p. 35, and Figure 1-1, The Five Competitive Forces that Determine Industry Profitability, p. 5.

Information Used to Plan Value-Creating Activities

An enterprise planning process generally begins with the creation of mission and vision statements. Such statements set the overall direction for an enterprise and provide an overall set of goals or objectives to be pursued. Eventually, these overall objectives are translated into more detailed objectives that guide action (task performance) within each of the entity's value-creating activities.

The process of setting of objectives for an activity may be described as follows:[5]

> Objective-setting involves identifying requirements that must be met, and identifying and balancing risks and opportunities associated with those requirements, and the needs and wants of various parties (both internal and external). Objectives-setting thus requires an understanding of the organization's mission and vision, the environment in which it operates and its position within that environment. Objective-setting is a continuing process, requiring monitoring of operating performance and of changes in the internal and external environments.

The above statement by CoCo identifies the following key strategic information used in setting objectives:

- ***Mission and value statements***. Information that provides context and direction and drives the entire objective-setting process.

- ***Environmental information***. Information about industry competitors, potential entrants, substitutes, etc. (see Value-System figure above) that provides further "context" for the setting of objectives.

- ***Needs/requirements.*** Information regarding needs, wants, or requirements that should (must) be met internally (e.g., the operations activity's need to satisfy the marketing activity's requirements regarding planned sales to customers — see Business-Value-Chain figure above) and externally (e.g., the enterprise's needs to satisfy customers and to report to shareholders — see Value-System figure above).

- ***Risks/opportunities.*** Risk (and opportunity) assessment information, which involves the identification of risks (opportunities) and the estimation of the likelihood of events occurring and their consequences.

- ***Monitoring.*** Monitoring information on prior operating performance (see further below) .

Assessing risks is an integral part of setting objectives. Risks are simply events or actions that can occur which defeat the achievement of objectives. Hence, deciding on appropriate sets of objectives for the various value-creating activities should be made in light of knowledge of risks that may prevent objectives from being achieved. Ultimately, managers need to put in place policies and processes that not only are directed to achieving objectives, but also are designed to mitigate risks (i.e., avoid actions or events that may defeat the achievement of objectives).

Planning culminates in the translation of objectives into detailed strategies and action plans which set forth desired performance for all value-creating activities. As part of this translation process, managers need to identify and develop a corresponding set of performance measures (corresponding to operating and financial targets) against which the progress of each activity can be measured and monitored.[6] To be effective as a management tool, the set of performance measures for all activities should capture the direction, magnitude and timing of the enterprise's strategic objectives.[7] In addition, performance measures ultimately should be linked to value created for consumers. Finally, the enterprise needs to develop information systems that, among other things, reliably capture actual performance measurements, which can then be compared periodically to their planning counterparts (see "Monitoring" below).

Information Used to Control Value-Creating Activities

Control may be defined either as a process or in terms of elements. Looking at it as a process, COSO defines control as follows:

> Control is a process, effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding achievement of objectives in the following categories:
> - Effectiveness and efficiency of operations
> - Reliability of financial reporting
> - Compliance with applicable laws and regulations.[8]

Looking at it as a set of elements, CoCo defines control as follows:

> Control comprises those elements of an organization (including its resources, systems, processes, culture, structure and tasks) that, taken together, support people in the achievement of the organization's objectives.[9]

Under either definition, control is exerted by the establishment of routines (control activities) that provide reasonable assurance that processes operate as designed and meet the requirements of the organization's policies (which in turn are directed to achieving organizational objectives).

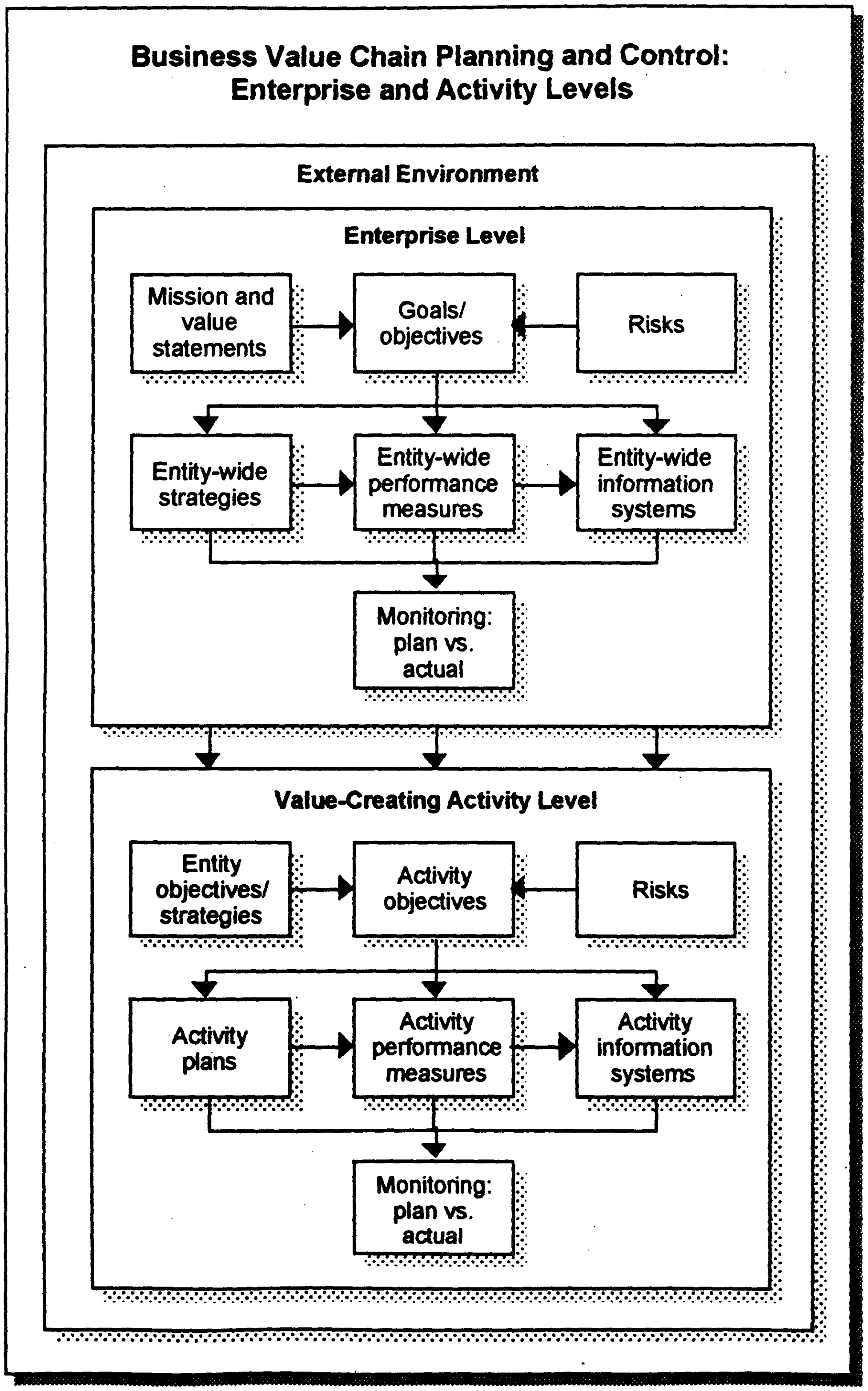
Monitoring

A key element of control involves monitoring of the following:[10]

- ***External and internal environments*** — to assess whether the organization's objectives or controls need to be changed.
- ***Operating performance*** — to assess whether the organization's planned operating and financial targets are being achieved by each of its value-creating activities.
- ***Control activities*** — to assess whether the organization's designed controls are operating effectively.
- ***Planning assumptions*** — to assess whether the organization's assumptions that underlie its plans remain valid.
- ***Information systems*** — to assess whether the organization's information systems are meeting decision makers' needs.

Monitoring involves the collection and evaluation of *information* (e.g., environmental, operating, and systems information) that indicates whether things are going as intended.

The above ideas are brought together in the figure below, which identifies major value-chain planning and control elements involved both at the level of the enterprise and at the level of a generic value-creating activity. Note that risk assessments, performance measures, and information systems come into play at both levels.



The CPA's Expanding Role in a Client's Value Chain

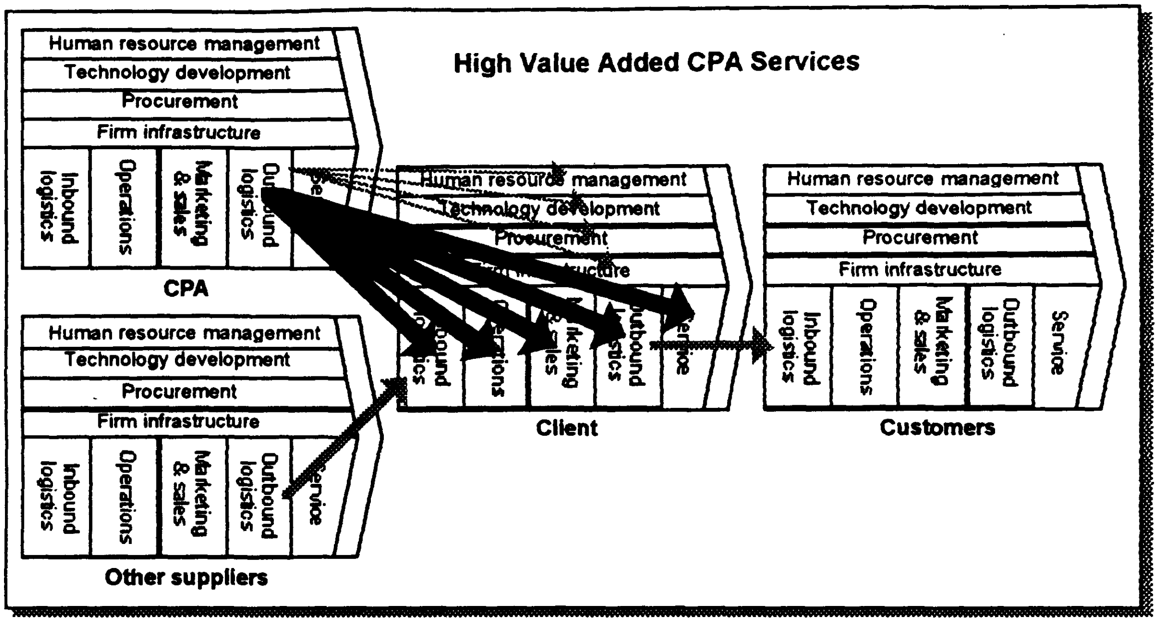
The CPA's traditional role in a client's value chain has been rather limited. It has focused on a narrow set of risks (audit risk and its components), a narrow set of performance measures (historical financial measures) reported to a narrow set of stakeholders (top management, investors, creditors), and a narrow view of information systems (internal historical financial transaction-based systems).

The new assurance services identified by the Committee would considerably expand the CPA's role by involving the assurer in a much wider range of information in an enterprise's value chain. Assurance involving risk assessment would consider a comprehensive set of risks at both the enterprise and activity levels, such as economy, industry, environmental, competition, customer, supplier, employee, operations, and information risks.

Performance measurement assurance services would focus not only on global financial and non-financial measures, but also on measures at the activity level. The services would address the important question of how global measures are translated into key measures at the activity level. Finally, assurance on performance measures would eventually be made available to an expanded list of stakeholders in an enterprise's value chain, such as suppliers, customers, employees, and partners.

Assurance regarding the reliability of information systems would consider all internal systems and information that are involved in the planning and control of value-creating activities, which includes non-financial as well as financial information, and prospective as well as historical information. In addition, assurance regarding the reliability of information systems would be extended to external systems involving electronic commerce relationships that exist within the enterprise's larger value system (see Value-System figure above).

Traditional CPA services — audits and tax compliance — have been directed to the *support* activities of clients (see Business-Value-Chain figure above), which add value by lowering the cost of capital and minimizing tax expense. However, major opportunities (wide arrows) remain to be pursued in providing assurance services directed to the strategic use of information to improve a client's *primary* activities[11] — see figure below.



Demand for New Assurance Services

The demand for assurance on risk assessments, performance measures, and reliability of information systems (both internal and external electronic commerce systems) represents a derived demand. That is, the demand for assurance is derived from the value (as perceived by the client) that these services contribute to the client's customers.[12] Consequently, CPAs can stimulate demand for these services by demonstrating to a client that the client's present approach in any one of these areas (risk assessment, performance measurement, etc.) is sub-optimal and that changes would eventually lead to greater value added to its customers.

Given a CPA's knowledge of the industry and client, opportunities for the CPA to demonstrate such potential improvements appear to be very great for two major reasons:

1. In the current, rapidly changing business environment, risks change very quickly, which means that an entity's objectives need to be updated frequently, which in turn means that its existing performance measures also need to be modified to mirror revised objectives, which in turn means that its internal information systems need to be modified to collect revised measures.

2. Even in a stable business environment, linkages between enterprise-level and activity-level planning and control elements (i.e., objectives, risks, performance measures, information systems), as well as linkages among the various activity-level planning and control elements, are often extremely complex, difficult to understand, and defy optimization.

Hence, a CPA's probing analysis of a client's value-chain activities is highly likely to uncover significant opportunities for various types of new assurance services.

A Migration Path for Expanding the CPA's Assurance Role

The value-chain planning and control activities identified in the Business Value Chain Planning and Control figure above involve a rather complex system, even for a smaller business enterprise. In addition, since risks, objectives, performance measures, and systems are interrelated (e.g., identified risks affect systems design, but systems outputs affect risk identification), it is often not clear where a practitioner should "jump in" with respect to offering new assurance services.

The Committee proposes a strategy — a migration path — for the pursuit of new assurance services that involves migration along three dimensions.

The *first dimension* involves a migration from information preparation activities to information evaluation activities. The practitioner should begin by assisting clients in capturing data about risks and performance. Assistance/assurance might be given with respect to the following tasks:

- ***Operational definitions.*** Identify an initial set of risks and performance measures and develop operational definitions that will guide the measurement of those items.

- ***Sourcing/finding data***. Identify data that can be used to measure the defined risks and performance measures.

- ***Systems design and implementation.*** Develop systems for the collection of data that will support the construction of risk and performance measures.

Once the client has put these systems elements in place, the assurer can migrate toward higher value assistance/assurance activities involving analysis, interpretation, and evaluation of the risk and performance information entering into various decision processes.

The *second dimension* of migration involves movement along the client's value chain. Here again interrelationships among value-creating activities make it difficult to decide where to jump in. However, since the "value-chain" characterization of an enterprise is essentially a customer-focused model, it makes sense to begin the above analysis of risks and performance measures by considering those activities closest to the customer and then work backwards through the set of primary activities to the support activities.

The *third dimension* of migration deals with various audiences that might be the recipients of assurance. Initially, all of the new assurance services are directed to internal audiences within the client organization, e.g., owner/managers, senior management, and boards of directors. In the long run, assurance is expected to migrate to outside audiences for several reasons:

- ***Superior performance.*** The client may wish to claim superior performance and provide information to support such claims.

- ***Competition***. The client may be forced by competition to reveal its performance — whether or not superior — in order to remain a "player" in a particular activity.

- ***User demand***. Outside decision makers may begin to demand a broader set of "assured" risk and performance information.

***

- The ideas above are illustrated in an inventory analysis case study.

Notes

1. See: Porter, M. E., *Competitive Advantage* (New York: The Free Press, 1985), Ch. 2.

2. Although the section focuses on business enterprises, value-chain analysis also applies to other types of organizations (e.g., not-for-profit organizations) that provide goods or services to consumers.

3. At the margin, value is equal to price.

4. In the remainder of this section, the term "product" will be used generically to refer to products or services.

5. See: The Canadian Institute of Chartered Accountants, Criteria of Control Board (CoCo) *Guidance on Control* (Toronto: CICA, 1995), p. 11.

6. CoCo, p. 13.

7. Kaplan, R. S., "Putting the Balanced Scorecard to Work," *Harvard Business Review*, September-October, 1993, p. 134.

8. Committee of Sponsoring Organizations (COSO) of the Treadway Commission, *Internal Control — Integrated Framework* (New York: COSO, 1992), p. 1.

9. CoCo, p. 2. Note that CoCo includes essentially the same three objectives that are listed above in the COSO definition.

10. CoCo, pp. 21-23.

11. See: Elliott, Robert K., "The third Wave Breaks on the Shores of Accounting," *Accounting Horizons*, June, 1992, p. 79.

12. Of course, the same is true regarding the client's demand for virtually *all* supplier goods and services — all such demand is ultimately derived from consumer demand. However, some derived demand linkages are more complex than others. For example, from the perspective of a raw material supplier, the linkage regarding "improved" raw materials (RM) might be as follows: improved RM ➔ improved product ➔ increased customer demand. In contrast, the assurance linkage might be: improved quality of information ➔ improved purchasing decisions ➔ improved outcomes (e.g., improved RM) ➔ improved product ➔ increased customer demand).

Future of the Financial Statement Audit

This report of the Special Committee on Assurance Services consists of 9 sections plus notes.

Executive Summary

This report focuses on the future of the current audit of historical financial statements. It considers the effects of changes in market demand for audits and various other external factors (for example, information technology). The report also considers whether the existing audit will survive in its present form.

To explore the future of audits, the Committee developed scenarios for four different types of entities: large publicly held; small private; very small private; and small local government unit. The scenarios evaluate each entity's future need for an audit and explore what an audit might look like in the year 2006.

Major Findings

The Committee believes that a major paradigm shift is currently underway involving both the kinds of information with which auditors are involved and the nature of that involvement. The shift may be described as follows:

Old Audit Paradigm	New Audit Paradigm
A set of yearly financial statements accompanied by an annual audit report	A set of real time financial and non-financial information accompanied by continuous assurance (to clients and possibly to the public)

Other findings related to users, preparers, and audits and CPAs are as follows:

Users

Users include lenders, individual and institutional investors, suppliers, customers, employees, unions, government, top management, and boards of directors. During the next ten years, a shift in power, enabled by information technology, is expected to take place from preparers to individual users of information. Users are expected to establish electronic connections with preparers, not only to provide feedback on their unmet information needs, but also to monitor risks and performance results.

Users will continue to view unqualified annual audit reports (or other forms of auditor reporting) as a significant signal regarding the integrity of entities and financial markets. They will demand that auditors to do a better job in dealing with the "tough problems," which include detecting fraud and illegal acts, providing early warning of financial distress and going concern issues, and dealing with risks, uncertainties, and estimates.

Preparers

In an increasingly competitive environment, entities of all sizes will continue to sharpen their "customer focus" in order to compete effectively, including a "customer focus" regarding users of their financial information. In short, preparers will become increasingly responsive to the demands of users and will increase the timeliness, breadth, and depth of financial and non-financial information they make available.

Preparers will continue to upgrade their internal information systems to cope with increasingly complex business and financial arrangements and to integrate all company activities. The arrangements include temporary alliances, electronic commerce, and new financial instruments made more complex by the "multi" issues (such as multiple countries, multiple currencies, and multiple laws).

Preparers will seek timely auditor involvement with respect to non-routine issues. They will also expect more value-added from an audit in terms of analysis and interpretation.

Audits and CPAs

Audits of GAAP information for public companies will continue to be demanded by the market and will remain as an SEC-mandated "core" service for the profession. In contrast, audits will become less important for small and very small private companies, which will look to agreed-upon procedures engagements to tailor assurance to particular users. On all engagements, whether for large or small companies, auditors will need to capitalize on their "audit knowledge base" by providing additional value through analysis and interpretation.

User demands for better detection of fraud and illegal acts will encourage auditors to develop new weapons for detecting fraud, including electronic sensors, software agents, computer modeling, and triangulation (i.e., exploitation of the connectivity relationships among various entities in the preparer's value chain).

Auditors will continue to be requested by large-company preparers to give timely assurance to them on significant, non-routine transactions, which will gradually lead to continuous auditing as the norm. In turn, continuous auditing may lead to continuous reporting (on an exception basis) supplemented with an annual audit report.

Given the increased skill level expected in the financial area of small and very small companies, CPAs will be able to maintain their current role as trusted business advisors if they are able to (1) deliver more value in audits of historical financial information, (2) assist in the design and implementation of other types of performance measures, and (3) assist in dealing with compliance issues and risks associated with operating in global electronic markets.

Recommendations

The Committee concludes its report by with recommendations for standard setters and CPA firms. The recommendations address, among other matters, the need to (1) expand the business reporting model; (2) develop new weapons to tackle the "tough problems," such as fraud detection; (3) develop worldwide audit teams with new skills to assist clients in dealing with the "multi" issues (e.g., multiple currencies, taxes, regulations, financial instruments, etc.); (4) develop audit guidance regarding highly integrated (worldwide) databases, electronic commerce, and electronic business reporting; (5) identify/understand users' evolving information needs; and (6) train CPAs in information technology, the "multi" issues, and business processes. In addition, the Committee strongly urges firms to reconsider two key aspects of their audit processes: (1) the level of audit partner involvement (higher levels may be needed to add value and to fight the "tough problems") and (2) effective use of knowledge acquired during the audit to bring additional value to the client and others. To succeed in these two areas the mind-sets and skill-sets of audit team members, particularly engagement partners, will have to undergo fundamental changes.

Objectives and Scope of this Report

The three objectives of this report are to:

1. Identify anticipated changes in users and preparers,

2. Assess the implications of those changes on audits and auditors/CPAs, and

3. Develop a set of recommendations for the AICPA and firms that are responsive to those changes.

The recommendations focus on ways in which the current audit process might be changed in order to meet the future needs of users. The ultimate goal of the recommendations is to continuously improve the current audit so that it remains competitive and provides a strong foundation upon which to build new assurance services. Although the report focuses on the current audit, certain implications and recommendations deal with current CPA services that provide other types of assurance, such as agreed-upon procedures engagements.

In order to achieve the objectives just stated, the Committee developed a set of scenarios for the year 2006 for four different types of entities. The scenario-building exercise was intended to develop a coherent picture of future users and preparers as they relate to four prototypical entities and to stimulate thinking regarding the possibilities and opportunities in store for audits of historical financial information during the next ten years.

Obviously, some details set forth in a scenario will not occur, and other details omitted from a scenario will inevitably take place. Such details are not as important as the overall direction of evolution that is suggested by each scenario. Before presenting the findings from the scenarios, several elements of the status of the current audit and some major types of change are briefly set out.

The Value of the Current Audit

The financial-statement audit service has generated fees of over $7 billion per year (in 1995 dollars) in the United States in each of the past five years, which exceeds revenues earned by either of the profession's other two major services — tax and consulting.[1] In addition, the current audit:

- Increases the reliability of information for users,

- Offers tremendous potential for adding additional value to users by encompassing new types of information,
- Reduces the cost of capital and improves liquidity,
- Is presently the key service by which the profession distinguishes itself as independent and objective "information specialists,"
- Provides unimpeded access to all facets of an organization's activities,
- Is relatively stable and profitable,
- Is presently legally protected as an exclusive service that can only be performed in most of the United States by CPAs, and
- Is the key CPA service by which "branding" of new assurance services will be accomplished.

These characteristics testify to the great value of the current audit.

Criticisms of the Current Audit

At the same time, the current audit is frequently criticized for failing to meet certain needs of users/decision makers (including clients). Critics charge that the audit fails to meet user expectations regarding (1) the detection of fraud and other illegal acts; (2) treatment of financial distress and going concern issues; and (3) treatment of risks, uncertainties, and estimates. Improving performance in these areas would add to the value of the current audit. It would also compensate to some extent for the decline in the accounting services that in earlier years accompanied audits. In the past auditors substantially assisted most clients in preparing financial statements (and related disclosures) and in eliminating errors, but dramatic improvements in both clients' skills in financial reporting and in systems reliability have lessened these contributions.

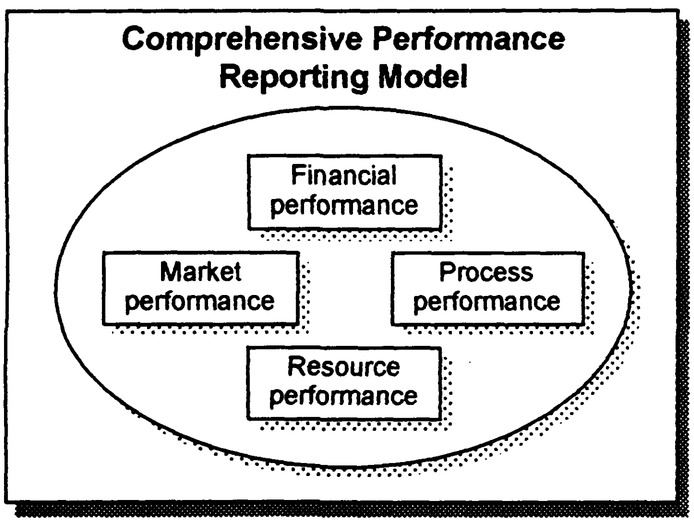
Auditors are criticized for failing to effectively use knowledge gained in an audit to bring more value to clients and others. Users believe that auditors "know much more than they tell" and that significant opportunities exist for auditors to add value by more effectively exploiting this knowledge base. Hence, there appears to be considerable room for improvement in the current audit over the next ten years.

Competition

Recently, the Florida Board of Accountancy lost its bid to keep CPAs working for American Express from "holding out" their CPA designation. Potential competitors most certainly will become emboldened by this court decision. They might next decide to challenge states' restrictions against nonCPA firms performing audit and review services.

The Current Audit's Information Set

The information set addressed in current audits — historical accounting transaction data and related estimates, adjustments, and disclosures that fall within the boundaries of generally accepted accounting principles — is just one component of a comprehensive set of information about an entity's performance. This is illustrated in the following figure.



In this model, performance reporting includes three additional dimensions beyond financial performance: market performance (outputs), resource performance (inputs), and process performance, which focuses on the critical internal processes used by an entity to convert its inputs to outputs. In addition, reporting for each of the four performance areas could be subdivided into historical and prospective information.

One of the major weaknesses of the current audit is that it omits other vital performance information. Nevertheless, such information is currently being developed by many entities and is being used by clients, investors, creditors, employees, customers, suppliers, unions, and other users in a variety of economic decision-making activities.[2] New assurance services based on market demand can help remedy this deficiency in the current audit by improving the information sets available to decision makers.

The Committee believes that historical financial information will continue to be reported during the next ten years. However, significant "enrichment" of the information set encompassed by GAAP is expected to occur through initiatives by standard setters, possibly along the lines of the recommendations of the Special Committee on Financial Reporting.

The Changing Audit Paradigm

The evolution of GAAP is only one of the changes that will affect the audit as it matures in the next ten years. All four scenarios presented in this report reflect a paradigm shift in auditing that is currently underway and is expected to gain considerable momentum over the next ten years. This shift is set forth in the following diagram:

Old Audit Paradigm	New Audit Paradigm
A set of yearly financial statements accompanied by an annual audit report	A set of real time financial and nonfinancial information accompanied by continuous assurance (to clients and possibly to the public)

See New Opportunities for Assurance Services (a section of the Committee's report on Information Technology) for additional discussion of this paradigm shift.

The Scenario Entities

The remainder of this report is divided into five sections, four scenarios and a set of recommendations. Tables at the end of the report provide detailed descriptions of the four scenarios. The briefer descriptions that follow in the text focus on users' and preparers' expectations and on the implications for the current audit and for auditors/CPAs. The characteristics of the entities described in each scenario are given below

- *Scenario 1.* Publicly-held company: medium to large, multinational, financially sophisticated.

- *Scenario 2.* Privately-held company, enterprise-based financing: small company, professionally-managed, financing based on credit-worthiness and/or prospects of the enterprise, significant equity financing by third parties (e.g., venture capitalists) financially sophisticated.

- *Scenario 3.* Privately-held company, owner-based financing: small company, owner-managed, financing based on credit-worthiness of the owner(s), financially less sophisticated.

- *Scenario 4.* Small, local government unit: financially less sophisticated.

Scenario 1 — Publicly-Held Company

In the year 2006, medium and large publicly-held companies will compete globally, not only in the marketing of goods and services, but also in the acquisition of resources, including capital. These entities will be connected in worldwide electronic networks (both intranets and the Internet) in which EDI transactions and electronic commerce will be the norm.

Users. Users of large, publicly-held companies are expected to continue to demand audits. They will continue to view "clean" audit reports as a major signal of the integrity of financial information in the market place. It is also likely that the SEC, acting in the public interest, will continue to require audits of all publicly held companies. Additionally, users will continue to demand that auditors do a better job in dealing with the "tough problems," detecting fraud and other illegal acts, treatment of financial distress and going concern issues, treatment of risks, uncertainties and estimates).

Several major changes are expected to take place with respect to users. First, power is expected to continue to shift from preparers to users. This shift is already evident with respect to large institutional investors, which represent approximately 50 percent of the market. These investors, driven by competition to earn higher returns, are becoming more proactive in dealing with investee companies. The other fifty percent of the market, made up of individual investors, may also wield increased power during the next ten years. Empowerment of the small user (e.g., small individual investors, customers, suppliers, employees) will be enabled by technology, particularly developments in the Internet and World Wide Web. Connectivity (i.e., electronic linkages among individuals and entities) will provide communication among users via chat groups, which will create the means for small users to speak with one voice. Almost every day, evidence of the gradual empowerment of the "small guy" is reported in the popular press.[3] Of course, the future power of this group will be highly dependent on their ability to understand and use financial information, an ability which is not widely held today.

Users, both large and small, are also expected to establish electronic connections with preparers. Such connections will provide users with appropriate negotiating forums (feedback loops) for making their needs and demands known to preparers, including needs for real or delayed-time access, needs for lower levels of disaggregation (users are expected to become adept at "mining" on-line information), needs for soft information, needs for "data about data," (e.g., information that would be helpful in interpreting particular data, such as definitions of the data, key assumptions underlying their measurements, and their reliability), needs for qualitative commentary, and other needs.

Preparers. In certain respects, preparers in 2006 will also be similar to today's preparers. For example, preparers will continue to seek timely auditor involvement with respect to non-routine transactions before those transactions are disclosed to the public. In addition, preparers will increasingly demand more "value-added" from an audit in the form of analysis and interpretation. Also, preparers will continue to implement highly integrated databases with powerful query capabilities that reflect worldwide activities on a real time basis. Finally, preparers are expected to continue to establish EDI linkages with other entities in their value chain.

At the same time, several major changes are expected for preparers. First, preparers are expected to face increasingly complex business and financial issues (e.g., hedging, structuring of transactions to avoid excessive taxation, etc.) that are exacerbated by the "multi" issues (e.g., multiple countries, multiple currencies, multiple tax laws, multiple regulations, etc.). Second, they will adopt a "customer" focus, which will reinforce many of the user changes described above. Third, preparers are expected to significantly improve the reliability of their information systems for dealing with routine transactions. Reliability enhancements will include software preventive controls, electronic sensors and software agents for detection of exceptions, and greater redundancy.

Fourth, preparers have begun to experiment with alternative approaches for disclosing financial information, ranging from "defined views" of databases in real or delayed-time to highly structured, multimedia presentations at periodic intervals. Finally, preparers are expected to move from a paper-based to an electronic-based environment, which will introduce new types of risks involving issues of authentication, trustholding, and privacy.

Implications for Audits and CPAs. Audits of GAAP information for public companies will continue to be demanded in the marketplace and will continue as an SEC-mandated "core" service for the profession. And, to the extent that the profession makes significant headway on the "tough problems," unqualified audit reports (issued yearly, at shorter periodic intervals, or continuously) across a range of publicly-held entities will continue to be a significant signal indicating overall integrity of publicly available financial information.

Auditors will continue to be requested by preparers to give timely assurance to them on significant, non-routine transactions, which will gradually lead to continuous auditing as the norm. In turn, continuous auditing may lead to continuous reporting (internally and possibly externally on an exception basis) supplemented with an annual audit report. Auditors are also expected to place increased emphasis on delivering additional value from an audit through analysis and interpretation, which will require greater audit partner involvement.

User demands for better detection of fraud and illegal acts will encourage auditors to develop new weapons for detecting fraud, including electronic sensors, software agents, computer modeling, and triangulation (i.e., exploitation of the connectivity relationships among various entities in the preparer's value chain). Auditors will also need to continue to sharpen existing weapons, including gaining better understanding of industries, business systems and processes, and business risks.

The use of these various weapons suggests that audit teams will have to be expanded in terms of knowledge and skill sets to include other specialties, such as fraud specialists, legal and regulatory specialists, industry specialists, and information technology specialists. Greater audit partner involvement will also be needed in this area.

The anticipated shift in power from preparers to users will likely lead to user demands for historical financial information that is more timely, particularly more timely regarding issues of financial distress, risks, uncertainties, and estimates, which will likely lead to more timely auditor involvement on these issues. Users will also want information that is more disaggregated. Finally, users are expected to demand some type of qualitative commentary — possibly provided by the preparer (MD&A) or auditor, or both. To better understand user expectations regarding outputs of the audit process, the AICPA (and possibly larger audit firms) may choose to become electronically connected with various user groups.

As preparers increasingly adopt worldwide, integrated database systems, auditors will need to develop appropriate approaches, both for assessing the control risks associated with those systems and for providing timely responses to preparer requests for auditor involvement with all non-routine issues. Worldwide audit teams will be needed that have the skills necessary to deal comprehensively with a client's "multi" issues. Also, as preparer systems become increasingly reliable in dealing with routine transactions, audit effort will continue to shift away from "getting the bookkeeping correct" to concentrating more on dealing with the "tough problems," resulting in gains both in audit efficiency and effectiveness. In addition, as preparers increasingly embrace electronic commerce, auditors will need to gain a better understanding of the risks involved in electronic commerce and develop appropriate audit approaches for dealing with those risks.

For more detail, see Table 1.

Scenario 2 — Small, Privately-Held Company, Enterprise-Based Financing

What will a small, privately-held company look like in 2006? Consider a recent case reported in the *Wall Street Journal* involving a startup company in the retail book business.[4] The company, called Amazon.Com Inc., has the following characteristics:

- *Management:* Headed by a professional manager trained in a larger company context.
- *Ownership:* Privately-held (several million dollars were raised from venture capitalists).

- *Sphere of operations:* Operates globally on the world wide web with customers in 66 countries, but with one physical location in Seattle.
- *Markets served:* Niche market for retail books.
- *Sales force and advertising:* Very minor.
- *Business transactions:* Most transactions are conducted electronically.
- *Hard assets:* Minimal amounts of receivables, inventory, and plant.
- *Soft assets:* Databases involving books and customers.
- *Core competency:* Effective management of databases.

Amazon.Com is essentially a "virtual" company that is in the "information" business. In comparison to the typical small business in today's marketplace, Amazon may seem to have rather unusual characteristics. In fact, companies like Amazon are expected to proliferate during the next ten years, largely enabled by technology, and the scenario for the small company summarized below is based on this premise.

Users. In this scenario, lenders look to the credit worthiness of the enterprise. Accordingly, lenders will seek credit information related to the small company that focuses on the quality of the company's assets as well as expectations regarding its future cash flows. Some of this information will be contained in the company's GAAP financial statements, but lenders will not be restricted to those statements in assessing credit worthiness. Indeed, for a company like Amazon.Com, most "assets" are intangibles that will not show up on the company's balance sheet under today's GAAP. Lenders seeking information on those intangibles will have to rely on ad hoc measures provided by preparers, possibly tested for reasonableness by the CPA.

To efficiently monitor credit given to the small company, lenders may become connected to the entity, and may demand access (in the form of "defined views") to tailored information (e.g., changes in expected future cash flows) regarding particular aspects of a specific credit. In addition, lenders are expected to demand some form of auditor involvement with respect to the information that the lender monitors (historical and prospective information).

Other users (e.g., venture capitalists, bonding companies, alliance partners, and nonmanager family members) are expected to continue to require audits to protect their interests. In addition, major suppliers and customers are expected to become connected with the small company, not only to achieve efficiencies offered by electronic commerce, but also to monitor credit risk (suppliers) and the risk of interrupted supply (customers). Finally, given that the small company may have numerous physical locations, top management may seek audits or some other form of CPA assurance (e.g., review of control environment) as a means of monitoring activities in remote locations.

Preparers. Financial management of the small company will be highly skilled and will need very little, if any, CPA assistance in the preparation of historical financial information (the unusual or nonroutine transaction may trigger CPA involvement). These highly skilled preparers are also expected to negotiate more aggressively with lenders and other users regarding the nature of auditor involvement in information disseminated to users. In instances where an audit is required, preparers will increasingly demand more "value-added" from an audit in the form of analysis and interpretation.

Small companies that have numerous remote locations will begin to implement highly integrated databases with powerful query capabilities that reflect all of the company's activities on a real-time basis. Given the increased complexities of these systems, top management will have concerns about the controls surrounding such systems. Preparers are also expected to move aggressively in the design and implementation of more comprehensive performance measures for their companies. In addition, preparers are expected to establish numerous EDI linkages with other entities in their value chain. Finally, as the small company establishes a significant presence in global electronic commerce, preparers will have increasing concerns about compliance with taxes, rules, and regulations that exist in significant foreign markets.

Implications for Audits and CPAs. Audits will continue to satisfy certain user needs relative to the small company. In cases where audits are performed on small companies, auditors are expected to place increased emphasis on delivering additional value through analysis and interpretation, which will require greater audit partner involvement.

Agreed-upon procedures will become increasingly important in fulfilling a broad range of user assurance needs, including lender needs for assurance on cash flow information and intangibles and top management's needs for assured performance information regarding remote locations.

Given the increased skill level expected in the financial area of small companies, CPAs will be able to maintain their current role as trusted business advisors if they are able to by (1) delivering more value in audits of historical financial information through analysis, interpretation, and other services that decision makers find helpful; (2) assisting in the design and implementation of other types of performance measures; and (3) assisting in dealing with compliance issues associated with operating in global markets.

For more detail, see Table 2.

Scenario 3 — Small, Privately-Held Company, Owner-Based Financing

Table 3 compares company characteristics involved in moving from scenario 2 to Scenario 3. The following paragraphs describe the major features of Scenario 3.

Table 3

Similarities and Differences in Characteristics Between Scenarios 2 and 3

Characteristic	**Scenario 2**	**Scenario 3**
Management	Team of professional managers	Professional owner/manager
Ownership	Ownership more widely distributed (venture capitalists may be involved)	One or a very few owners
Credit risk	Enterprise-based	Owner-based
Sphere of operations	Global; multiple physical locations	Global; one or a very few physical locations
Markets served	Several niche markets	One niche market
Business transactions	Mostly electronic/EDI	Mostly electronic/EDI
Assets	Significant percentage in intangibles	Significant percentage in intangibles

Users. Lenders look to the owner of the very small company rather than to the entity in order to manage credit risk. Larger credits will be based on the quality of the personal collateral offered by the owner(s). Accordingly, lenders will have less interest in the historical financial information of an entity and will rely more on personal financial information of the owner(s) — periodically updated — as a basis for approving and renewing secured credit. In order to efficiently monitor a company's significant "asset-based" credits (for example, accounts receivable and inventory), lenders may become connected with the entity. In addition, lenders are expected to use credit scoring techniques for unsecured loans. Such techniques identify higher risk clients who are given smaller credit lines and charged higher interest rates.[5] For both secured and unsecured credit, lenders are expected to want some form of auditor involvement — tailored to the specific credit — with respect to the information submitted by owners.

As in Scenario 2, other users (e.g., bonding companies, alliance partners, and non-manager family members) are expected to continue to require audits to protect their interests. In addition, major suppliers and customers may become connected with the entity, not only to achieve efficiencies offered by electronic commerce, but also to monitor credit risk (suppliers) and the risk of interrupted supply (customers).

Preparers. The profile of preparers in Scenario 3 is similar to that in Scenario 2, except for the degree to which certain attributes are present. Thus, Scenario 3 companies also will increasingly be managed by a professional owner/manager. In addition, these entities may attract more skillful financial managers, who will become more proficient in the preparation of historical financial information.

Preparers will move away from the "one-size-fits-all" reporting/audit model and will negotiate with various users regarding the nature and timing of personal and company information to be provided and the nature of CPA assurance to be provided. In instances where an audit is required, preparers will increasingly demand more "value-added" from an audit in the form of analysis and interpretation.

Preparers will also continue to upgrade their internal systems to provide the professional owner/manager with a more comprehensive set of performance information. Also, as the entity moves into global electronic commerce, preparers will have concerns, not only about compliance with taxes, rules, and regulations in significant foreign markets, but also about the risks associated with electronic commerce.

Implications for Audits and CPAs. Audits are expected to continue to satisfy demands of certain users involved with Scenario 3 companies. In those instances in which an audit is performed for the very small company, auditors are expected to place increased emphasis on delivering value-added through additional analysis and interpretation (i.e., auditors will move up the information value chain in their dealings with preparers), which will require greater audit partner involvement.

Assurance on historical financial information will increasingly take the form of agreed-upon-procedures (AUPs) engagements, which allow the preparer and CPA to tailor the assurance to particular user needs (for example, assurance on the current status of collateral). Thus, opportunities for AUPs are expected to arise with respect to personal and company information involved both in credit scoring for unsecured credit and in other credit submissions related to secured credits.[6] AUP opportunities are also expected to arise with respect to a company's significant trading partners.

Preparers will continue to view their CPAs as trusted business advisors. As preparers become more proficient in the preparation of historical financial information, the CPA will need to provide additional value to the client. The value-adding CPA could assist in interpreting results, which may involve identifying and/or creating appropriate benchmarking information. In addition, as the very small company begins to explore a more comprehensive set of performance information, the CPA may assist in designing and implementing appropriate measures. Finally, as the very small company moves to global electronic commerce and faces new compliance requirements and new risks, the CPA will need to understand taxation and regulation in key client markets and the risks involved in electronic commerce.

For more detail, see Table 4.

Scenario 4 — Small Local Government Unit

A small local government unit is likely to face an environment in the year 2006 that has the following characteristics:

- ***Accountability:*** Citizens will have increasing concerns about what they are getting in return for what they are paying, which will lead to demands for significant improvements in productivity.

- ***Downsizing:*** Partly as a result of dissatisfaction with government unit effectiveness and partly as a result of trends in privatization and outsourcing of government services, government activities are expected to continue to shrink over the next ten years.

- ***Financial Reporting:*** By adopting a "flow of financial resources" approach, governmental accounting standards are expected to become more closely aligned with commercial accounting standards.

- ***Audits:*** The Single Audit Act will remain in force during the next ten years, possibly modified to include more emphasis on performance auditing.

The scenario reflects these characteristics and also assumes that the small local government unit is of sufficient size to come under the Single Audit Act.

Users. Citizens will have major concerns about the accountability of small local government units and will increasingly demand periodic information on funds spent vs. outcomes (i.e., performance audits). They will also have concerns about fraud and illegal acts. Federal and state funding agencies will share these concerns. In addition, they will be concerned about the local unit's compliance with provisions of grants made to the unit. Municipal bond market investors, insurers, and analysts will have concerns about the reliability of the financial information disclosed by the local unit as well as concerns about fraud and illegal acts and financial distress of the entity. All of these users will continue to look to the Single Audit Act as the key test of the local government unit's financial integrity.

Users are not expected to want to actively monitor the day-to-day activities of local government units. Yearly reporting will continue as the norm. Hence, connectivity and real-time reporting will not be deployed as rapidly in these units as in the private sector.

Preparers. Local government units will resist changing the "rules of the game" by which they are evaluated and accordingly will resist making changes/enhancements (e.g., new performance measures) to the information set currently being reported.[7] Preparers, facing pressures to do more with less (downsizing), may also be reluctant to embrace advances in technology (connectivity, integrated systems) which often require significant up-front investments.

Implications for Audits and CPAs. Anticipated gradual increases in the threshold for Single Audits, as well as the recently adopted "risk-based approach" may lead to some reduction in audit revenues. However, the expected increase in demand for performance audits may more than offset that reduction. Although auditor involvement will generally continue to be "after-the-fact," local units that pursue various outsourcing options may seek timely auditor involvement in order to effectively monitor various outsource units.

For more detail, see Table 5.

Recommendations

The various scenario implications described above lead to the following set of recommendations addressed to standard setters and CPA firms. (The numbers listed beside each recommendation heading identify the scenarios giving rise to the recommendation.)

FASB

The first three scenarios, which all deal with "for-profit" entities, identify the following major issue for consideration by FASB:

1. ***Expansion of the business reporting model*** (1, 3). In response to managers' decision-making needs, companies are rapidly designing and implementing internal performance measures that go far beyond historical financial measures (GAAP). The AICPA Special Committee on Financial Reporting concluded that many of these same performance measures would be valuable information to external parties in evaluating business enterprises:

   > Business reporting must...focus on factors that create longer term value, including non-financial measures indicating how key business processes are performing (Special Committee on Financial Reporting, *Improving Business Reporting,* p.5).

   The Committee's research on customer needs supports the findings of the Special Committee on Financial Reporting, and the Committee urges the FASB to consider expanding business reporting in the directions recommended.

2. ***Reporting when companies are in financial distress*** (1). Auditor reporting on "going concern" is, in part, to compensate for limitations in financial reporting. Management should have a responsibility to provide information and analysis users need to evaluate an entity's financial situation, including its ability to continue as a going concern. FASB should consider whether the financial reporting requirements of SOP 94-6, *Dis-*

closure of Certain Significant Risks and Uncertainties, provides users with sufficient early warning information regarding existing or expected financial distress.

3. ***Understanding user needs*** (1). The FASB should consider establishing an ongoing communication (via electronic connection) with user groups involving the "small guy" as a means for identifying the need for new or changing standards and/or guidance.

AICPA

The above scenarios identified the following areas in which initiatives should be considered by the AICPA:

1. ***The tough problems*** (1, 4).[8] To make further progress on the tough problems (i.e., fraud and other illegal acts, financial distress and going concern, risks, uncertainties, and estimates) that may arise in an audit of historical financial statements, additional guidance is needed in the following areas:

   - *Fraud and other illegal acts.* New audit standards clarify the performance level that must be met in an audit. Two needs remain. First, more audit emphasis needs to be placed on prevention. Guidance is needed on how information technology and systems design can prevent fraud and illegal acts and how client systems should be evaluated from this "prevention" perspective. An understanding of preventive controls is the key to becoming associated with (providing assurance on) the content of data bases. Second, additional guidance is needed on *how to detect* significant occurrences of fraud and other illegal acts. Such guidance might take the form of a comprehensive set of case studies that explain how such events have actually been detected. Guidance is also needed as to how information technology can most effectively be brought to bear on this problem, not only in detecting occurrences, but also in understanding automated systems and how they should be designed to prevent occurrences in the first place.

   - *Financial distress and going concern.* In coordination with any actions taken by the FASB with respect to FASB recommendation 2, above, the AICPA should consider whether:

     - SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties,* is effective in providing adequate information about risks and uncertainties.

     - SAS No. 59, *The Auditor's Consideration of an Entity's Ability to Continue as a Going Concern,* should be enhanced to address situations in which there is financial distress, but there is no substantial doubt about the entity's ability to continue in existence for one year from the balance sheet date. In addition, "how to" guidance is needed that more effectively deals with the role of forward-looking information in assessing and reporting on financial distress.

- *Risks, uncertainties, and estimates.* Additional how-to guidance is needed to help auditors improve testing of risks, uncertainties, and estimates.

2. ***Agreed-Upon Procedures.*** The Auditing Standards Board should consider whether its standards will unnecessarily inhibit the growth of agreed-upon-procedures engagements.

3. ***Systems*** (1, 4). Performance guidance is needed that deals with timely auditor involvement (including continuous auditor reporting) with the content of databases and/or the processes and systems that generate the content.

4. ***Electronic commerce*** (1, 4). Performance guidance is needed for auditor involvement with electronic commerce.

5. ***Electronic reporting*** (1). Preparers are beginning to experiment with electronic disclosure of financial information. Guidance is needed regarding the auditor's association with such information.

6. ***Understanding user needs*** (1). The AICPA should consider establishing an ongoing communication (via electronic connection) with user groups as a means for identifying the need for new or changing auditing standards and/or guidance.

7. ***Credit Scoring*** (2, 3). As a service to smaller practice units, the AICPA should consider conducting a study to examine various credit scoring models used by lenders and to develop appropriate forms of assurance that smaller CPA firms might provide on significant data that drive those models.

8. ***Benchmarking data base*** (2, 3). With CPA firm participation, the AICPA should consider creating a "benchmarking" data base for use by CPAs in assisting very small and small clients in assessing their performance.

9. ***Training.*** The AICPA should consider developing additional CPE course materials in the following areas:

    - *Information technology* (2, 4). A series of training modules for smaller CPA firms aimed at increasing their knowledge and skills in information technology.

- *Performance auditing* (4). A series of training modules for smaller CPA firms aimed at increasing their knowledge and skill in performance auditing of governmental units.

CPA Firms

The above scenarios suggest the need for the following initiatives by CPA firms involved in audits and other assurance services:

1. ***Use of audit knowledge*** (1, 4). Auditors are in a unique position to add value to clients by having unrestricted access to a client's affairs. By combining this vantage point with knowledge of a client's industry, the auditor can gain insights into a client's affairs that represent vital information of great potential value to clients. This information should be systematically organized and presented to clients as a key "deliverable" of an audit. This move will necessitate a change in mindset of the audit partner and other audit team members. Rather than think of the audit "deliverable" as simply the audit opinion, the deliverable needs to be thought of as a customized set of communications. Such communications should exploit the knowledge gained on an audit regarding strengths, weaknesses, opportunities, and threats faced by the client.

2. ***The tough problems*** (1-4). In concert with the AICPA, firms also have a significant role to play in making further progress on the tough problems that may arise in audits. For each of the items below, firms should consider the need for greater audit partner involvement as a key element of improvement/solution strategies.

   - *Fraud and other illegal acts:*

     - Additional firm guidance is needed on how information technology and systems design can prevent fraud and illegal acts and how client systems would be evaluated from this "prevention" perspective.

     - Additional firm guidance also may be needed in order to more effectively deal with the detection of fraud and other illegal acts.

     - Information technology needs to be integrated into firm audit processes, not only to detect occurrences, but also to aid in understanding automated systems and how they should be designed to prevent occurrences in the first place.

     - The composition of the audit team may need to be modified to increase its fraud detection possibilities.

- Additional training is needed in areas, such as information technology, business processes, and business risks, that would strengthen audit team performance with respect to fraud detection.

- *Financial distress and going concern:*

    - Additional firm guidance may be needed in order to more effectively deal with the role of forward-looking information in assessing and reporting on financial distress.

    - Additional training may be needed to strengthen the auditor's understanding and interpretation of forward-looking information.

- *Risks, uncertainties, and estimates:*

    - Additional firm guidance may be needed on how to test the reasonableness of assumptions and how to assess the quality of the process by which management's judgments are derived.

    - Additional training is needed to strengthen the auditor's understanding and interpretation of management's judgmental processes.

3. ***Understanding user needs*** (1, 4). Firms should consider establishing an ongoing communication (via electronic connection) with users as a means of better understanding their information needs.

4. ***Client Systems*** (1, 4). Firms need to strengthen audit approaches for assessing control risk associated with highly integrated, worldwide databases of historical financial information. In addition, firms need to continue to develop and refine methods for continuously monitoring/auditing client systems. Firms also need to develop audit approaches for dealing with risks of electronic commerce.

5. ***Performance Auditing*** (4). Firms involved in audits of governmental units need to continue to develop or refine audit approaches for performance audits.

6. ***Training*** (1, 4). Besides the specific training considerations noted above, firms need to develop a series of training modules aimed at increasing the auditor's knowledge and skills in information technology.

Smaller CPA Firms

The above scenarios suggest the following additional initiatives for consideration by smaller CPA firms:

1. ***Understanding user needs*** (2, 3). Smaller firms should explore user needs for tailored assurance regarding information disseminated by smaller entities and develop appropriate AUPs to satisfy those needs. Smaller firms should also gain an understanding of electronic commerce relationships involving small businesses and the need of various parties for new information that may be used to protect their interests, which would be the basis for designing effective AUP approaches for providing assurance on that information. Finally, smaller firms need to gain an understanding of credit scoring models and appropriate AUP approaches for providing assurance on model input data (see "AICPA," above).

2. ***Benchmarking*** (2, 3). Smaller firms need to develop approaches for assisting clients in interpreting historical financial results, including an appropriate benchmarking component.

3. ***Comprehensive performance measures*** (2, 3). Smaller firms should consider developing approaches for assisting clients in designing and implementing comprehensive sets of performance measures.

Notes

1. "Accountants Expand Scope of Audit Work," *Wall Street Journal*, June 17, 1996, p. B1. Note that the $7 billion is stated in terms of 1995 dollars and reflects combined accounting and auditing fees.

2. See the report of the Special Committee on Financial Reporting (the Jenkins Committee): *Improving Business Reporting — A Customer Focus*, 1994.

3. For example, see: "Investing in a Fool's Paradise," *Fortune*, April 15, 1996, p.87; "The New Grapevine is Online," *Business Week*, May 27, 1996, p. 132; "Consumers Unite.Com," *Business Week*, July 1, 1996, p. 6; "Now the Medium is the Message Board," *Business Week*, July 8, 1996, p. 114.

4. "Reading the Market: How Wall Street Whiz Found a Niche Selling Books on the Internet," *Wall Street Journal*, May 16, 1996, p. A1.

5. See: "Mom and Pop, You Are Pre-qualified!" *Business Week*, April 15, 1996, p. 98. Note that credit scoring will also apply to entities described by Scenario 2.

6. Alternatively, in order to avoid the CPA's confidentiality relationship with his or her client, the bank may directly engage the CPA to perform AUPs on information submitted to the bank by its small business lenders.

7. Of course, proposed new performance measures may actually shed favorable light on a particular government unit, which may lead to increased budget appropriations, in which case the unit may be expected to embrace the proposed measures.

8. Also see United States General Accounting Office, *The Accounting Profession, Major Issues: Progress and Concerns* (GAO/AIMD-96-98), September 1996, which presents the GAO's position on these "tough problems."

Table 1

Scenario 1 for the Year 2006

Large, Publicly-held Company

Entity characteristics: Large, publicly-held, multinational company; financially sophisticated

Elements of scenario 1	**Drivers/enablers of major changes**	**Rationale/commentary re: scenario elements**
I. Users (includes lenders, individual and institutional investors, suppliers, customers, employees, unions, government, top management, and boards of directors):		
A. Similarities between today's vs. 2006's users:		
Users will continue to want and need audits.		User need is clearly established by work of AICPA Special Committee on Financial Reporting and the Committee's customer needs interviews. Users recognize that auditor involvement enhances the integrity of financial information made available in capital markets. In short, users believe that audits fulfill a "watchdog" role.
Users will continue to look to audited financial statements as a significant test of integrity of historical published financial information.		See previous comment. Although the annual period for audits will probably not change, the critical notion is that a "true-up" will occur regularly, which adds integrity to all financial information reported between successive "true-ups."
Users will continue to view the audit report as a "seal of approval" regarding financial information.		• The messages contained in the auditor's report involving "reasonable assurance (confidence)" and "materiality (precision)" may undergo refinement. Users are believed to have more of a need for understanding the imprecision in information, perhaps through the communication of ranges(see below), than they have for understanding different levels of assurance. • Reporting on "systems quality" may go beyond a "pass/fail" message and report on specific risk exposures — see further below under "Preparer."
Users will continue to expect auditor involvement to lead to significant improvements in dealing with the " tough problems:" • Detection of fraud and illegal acts.		Users will expect auditors to improve their detection capabilities. Users will also expect auditors, who they will view as working in the users' interests, to push for better disclosures in the listed areas.

• Early warning of financial distress. • Reporting on risks, uncertainties, estimates.		
B. Major changes between today's vs. 2006's users:		
Power will shift from preparers to users, who will favor entities that provide more timely and complete disclosure.	• Accountability • Connectivity	Connectivity provides for communication among users via chat groups, which will create the opportunity for users to speak with one voice. The recent Intel chip problem is indicative of how fast users can organize themselves on a public network to exert considerable power.
Users will become electronically "connected" with each other and with preparers and auditors.	Connectivity	See the above comment on connectivity of users. Connectivity of users with preparers and auditors provides the necessary feedback loops for the views of users to become more clearly articulated.
Connectivity will provide an ongoing "negotiation forum" for users vs. preparers. Points of negotiation will include: • Levels of disaggregation. • Treatment of soft information. • Choice of multimedia formats.	Connectivity	See above comments on connectivity. The negotiation forum provides users with the essential feedback communication loop necessary to make their needs known regarding "precision" and also "level of assurance."
Users will increasingly demand more: • Disaggregation. • Qualitative commentary (e.g., expanded MD&A). • "Data about data."	• User demands • Accountability • User competency in IT	• These needs were clearly identified by the Special Committee on Financial Reporting. Although users have expressed interest in auditors providing qualitative commentary (See SCFR report, Ch. 7), preparers will strongly resist this idea — see further below under "Preparers."
Users will increasingly expect timely, on-line financial information (GAAP) that provides "drill-down" options.	Connectivity	Developments in information technology will sweep away barriers inhibiting timely reporting, and users quickly will become aware of these developments and make their demands known for timely information.
Users will become adept at "mining" on-line information.	User competency in IT	Users may well need the help of "financial intermediaries" in attempting to search through the "sea of data" that will be available on public networks, but user capabilities will also dramatically increase.
Users will increasingly have the power to invoke "severe penalties" on entities that: • Reveal prior misstatements.	• User empowerment • Connectivity	The Wall Street Journal regularly reports cases where "surprises" have led to dramatic declines in share prices. Connectivity will speed up user reaction and probably make it more severe, since users will be speaking with one voice. Users will demand that the reporting of "negatives" encompass numerous issues less

• Report unpleasant surprise. • Fail to report "negatives" on a timely basis.		extreme than potential business failure and also encompass a much longer time frame than the current one-year period associated with the "going concern" issue.
II. Preparers		
A. Similarities between today's vs. 2006's preparers:		
Preparers will continue to seek timely auditor involvement on the complex, non routine transactions.		Preparers will want to avoid being "burned" by financial reporting errors or reporting of unpleasant surprises. Developments in information technology enables preparers to seek timely, in-depth auditor involvement.
Preparers will continue to be pressured to disclose more and more "competitively sensitive" information.		The tension between the user's right to know vs. the preparer's need for confidentiality of competitively sensitive information is not new and will continue. However, the power of the user is a new development, which will alter the balance towards greater disclosure. Also, as the pace of change quickens, the length of the period needed for protection of sensitive information is reduced (i.e., sensitive information becomes stale very quickly).
Preparers will continue to resist user demands for auditor qualitative commentary.		Preparers will aggressively move to maintain control of the interface with users. Qualitative commentary will be seen as the preparer's legitimate domain. Also, auditor commentary will be seen as undermining the free flow of information in an audit. The audit process must allow for auditors to know more than they say; otherwise, the process would become adversarial. If auditors announce to preparers that they intend to add qualitative commentary, the preparer's likely response will be that they will provide the commentary and the auditors can review it for reasonableness. Hence, auditor commentary would become redundant.
Preparers will increasingly demand more "value-added" from an audit.		Preparers view auditors as "knowing more than they say."
Preparer financial systems will continue to move towards highly integrated data bases with powerful query capabilities.		This movement is swiftly becoming a reality as systems such as SAP are implemented.
Preparers will continue to increase their connectivity with other preparers (e.g., EDI linkages) in their value chain.		This connectivity will continue to take place to improve the efficiency and effectiveness of preparer operating processes. As described further below under " Audits," this connectivity will open up significant opportunities for new types of audit evidence involving triangulation (i.e., looking at the same transactions

		from different entity perspectives).
Systems reliability will continue to increase with respect to routine transaction processing and to prevention/detection of errors.		Reliability enhancements will reflect improvements in software reliability (preventive controls), use of electronic sensors and software agents for monitoring and detection, and use of massive redundancy to insure fail-safe operation. Note that these reliability enhancement possibilities will also be available to the auditor in assessing system quality and searching for exceptions — see further below.
B. Major changes between today's vs. 2006's preparers:		
Preparers will become increasingly responsive to users: • Power shift to users. • Self interests of preparers will lead to adoption of a "customer focus."	• Accountability • Connectivity • User empowerment	Users will seize power (see above), and preparers will give up power regarding disclosure in order to achieve lower costs of capital.
Preparers will face increasingly complex GAAP reporting: • More countries. • More currencies. • More tax laws and regulations. • More complex financial instruments.	Globalization	The "multi" dimension will continue to make reporting increasingly complex. Opening markets in the former Soviet Union, Eastern Europe, and China are current examples.
Preparers will begin to provide timely, on-line multimedia presentations of GAAP financial information (e.g., via WWW home pages).	Connectivity	Network presentations will become the most efficient and effective means for communicating financial information.
Preparers will experiment with providing users with "defined views" of their data bases.	• Mass customization • Connectivity	In short, numerous different disclosure possibilities will be enabled by technology, ranging from providing defined views of data bases to highly structured, multimedia presentations developed by the preparer.
Connectivity with users will provide preparers with feedback on user needs.	Connectivity	See previous comments on connectivity and feedback communication loops between users, preparers, and auditors.
Systems will move from paper-based to an electronic-based environment.	Electronic commerce	New types of risks will arise involving authentication, trustholding, and privacy.
Boards of Directors and senior management will want assurance on the quality of their complex, integrated, multinational financial systems.	Developments in enterprise software	The "multi" dimension of financial reporting systems will be of particular concern to Boards of Directors and senior management because of the uneven skills/expertise resident in various

		domiciles.
III. CPAs:		
A. Similarities between today's vs. 2006's role of CPAs:		
Audits will continue as a "core competence" service and will involve annual audit reports on GAAP financial information.		"Clean" audit reports across a range of publicly-held entities will continue to be viewed as the primary signal of integrity of information and financial markets.
Auditors will continue to be requested by preparers to give assurance in real time on significant, nonroutine transactions.		Audit processes will continue to move towards continuous auditing.
Audit emphasis will continue to focus on solving the "tough problems" (see above list under "Users").		Users will expect increased detection capability with respect to fraud, illegal acts, and financial disruption. Current audit performance in these areas is below user expectations.
The "tough problems" will be attacked by "sharpening" existing weapons (also see "new weapons," below): • Better understanding of industries. • Better understanding of business and key processes in the value chain. • Better understanding of risks.		The "better understanding" will be reflected in new makeups of audit teams — see below.
GAAS will continue to evolve towards a more flexible, output-oriented framework, which will accommodate a variety of audit process reengineering initiatives by individual firms.		Firm-by-firm innovation regarding audit processes will not be constrained by GAAS.
Increased audit emphasis will be placed on delivering additional value from an audit through analysis and interpretation (i.e., auditors will move up the information value chain in their dealings with preparers).		Greater auditor involvement will be required to achieve this objective.
B. Major changes between today's vs. 2006's role of CPAs:		
MD&A type information will increasingly become part of the audited financial statements.	• Accountability • User empowerment	Auditor reviews of MD&A will be the preparer's solution for dealing with user demands for auditor qualitative commentary. These reviews will be performed for the purpose of detecting misstatements, inconsistencies, and/or omissions in management's analytical commentary.
Continuous auditing will become the norm, leading to much faster issuance of the year-end audit report.	User demands for timely information and preparer concerns	Continuous auditing of routine transactions will involve auditor monitoring of the preparer's process, using new techniques enabled by technology — see below. Continuous auditing of

	regarding the publication of erroneous information	nonroutine transactions will involve auditor examination of outputs of the preparer's system. In short, the audit will become process oriented for the routine and output oriented for the nonroutine.
Worldwide audit networks will focus on timely responses to the "non routine," which will often involve multinational dimensions: • Multi country, multi currency, etc.	Globalization	Timely responses worldwide is recognized as an extremely important "value-added" dimension of the audit process involving large companies.
As preparer systems become increasingly reliable in processing routine transactions, audit effort will shift away from getting the "bookkeeping correct:" • Detailed substantive tests for accuracy will be drastically reduced. • Work on detailed "transaction error" controls will be rotated over several years.	Developments in enterprise software	Work on controls will shift focus to prevention and detection controls for fraud and illegal acts.
The " tough problems" (see above list under " Users") will be attacked with new weapons enabled by technology.	• Triangulation that exploits connectivity of preparers • Electronic sensors • Software agents • Computer modeling of industry/company relationships	Many of the information technology innovations that preparers will use to strengthen the reliability of their systems may also be exploited by auditors in identifying unusual transactions or events. Also, EDI linkages among preparers provides auditors with the opportunity to look at specific transactions from different entity perspectives.
Auditor training will focus on: • Greater partner involvement. • Better understanding of the "multi" issues. • Better understanding of industries. • Better understanding of business processes. • Better understanding of information technology.	User demands for better solutions to the " tough problems"	The " tough problems" will be attacked by bringing new knowledge and skill sets to the audit team.
Audit teams will dramatically expand their knowledge and skill	User demands for better solutions to the tough	See above comments on training.

sets: • Audit partner knowledge of the business. • Fraud specialists. • Legal, regulatory knowledge. • Industry expertise. • Business process expertise. • Information technology skills.	problems	

Table 2

Scenario 2 for the Year 2006

Small, Privately-Held Company, Enterprise-based Financing

Entity characteristics: Small, privately-held, professionally-managed; multiple locations; financing based on credit -worthiness of the enterprise; markets may be global; financially sophisticated

Elements of scenario 2	Drivers/enablers of major changes	Rationale/commentary re: scenario elements
I. Users (includes lenders, suppliers, customers, bonding companies, alliance partners, family members (nonmanagers), and the entity's professional management and boards of directors):		
A. Similarities between today's vs. 2006's users:		
Lenders will demand some degree of CPA involvement — tailored to specific lender needs (i.e., agreed-upon-procedures engagements) — with respect to company financial information related to larger credits.		• Tailored auditor involvement takes place today and is expected to grow in importance as users increasingly reject the "one-size-fits-all" reporting/audit model. • Credit scoring (see below) will not apply to larger credits.
Other users — bonding companies, alliance partners, family members (nonmanagers), etc. may require audits to protect their interests.		In special cases, major concerns regarding preparer potential conflicts of interest will drive user demands for audits.
Top management may seek assurance regarding activities at remote locations.		Assurance may involve reviews of the control environments in remote locations.
B. Major changes between today's vs. 2006's users:		
Competition among lenders for small business loans will intensify.	Intensifying competition globally	Large banks are challenging the notion that small businesses are so tough to analyze that face-to-face contact is a necessity.
Lenders will increasingly use "credit scoring" techniques for unsecured loans (using enterprise variables), and will perhaps monitor such loans and "credit scores" through electronic linkages with the entity.	• Advances in computer modeling • Connectivity	See previous comment.
Significant suppliers and major customers will become connected with the entity and will demand defined views of the entity's information as a means of monitoring credit risk and the risk of interrupted supply.	Connectivity	Advances in EDI/intranets will make such linkages efficient and effective.

II. Preparers		
A. Similarities between today's vs. 2006's preparers:		
Preparers will negotiate with lenders, suppliers, customers, alliance partners, and other users regarding the nature of company information to be provided, its timing, and the nature of CPA assurance, if any.		Such negotiated solutions take place today and will continue as a means of moving away from the "one-size-fits-all" reporting/audit model.
In instances where an audit is required, preparers will increasingly demand more "value-added" from an audit.		Preparers view auditors as "knowing more than they say."
Preparers that operate in numerous remote locations will implement highly integrated data bases with powerful query capabilities.		These systems will reflect all company activities on a real time basis.
Preparers will seek assurance that internal systems are adequately controlled, including systems involved in electronic commerce.		Such assurance is a natural extension of assurance sought today on computerized accounting systems.
B. Major changes between today's vs. 2006's preparers:		
Entities will increasingly be managed by professionals, including more skillful financial managers.	Availability of professionals from downsizing, spinoffs, etc.	As the cost of starting a company declines, trained people who have an entrepreneurial interest will strike out on their own.
Internal information systems will be expanded to provide professional managers with a more comprehensive set of performance information — both historical and prospective.	• Improvements and cost reductions in integrated enterprise software • Intensity of competition	• Professional managers who have moved from larger companies will be accustomed to having access to such information. • The preparer's information set is expected to migrate to the other three boxes of the "comprehensive performance model" (see the report — Comprehensive Reporting Model figure).
Managers will have an increasing need for benchmarking/ profitability information to evaluate company results in the four areas of the "comprehensive performance model" (see the report — Comprehensive Reporting Model figure).	Intensity of competition	See previous comment.
Involvement in electronic commerce will rapidly increase and provide the vehicle for global expansion of markets.	• Increase in electronic commerce • Globalization	The creation of an "electronic presence" will become increasingly cost effective compared to creating a "physical presence" in multiple foreign markets.

Increasing penetration into international markets will lead managers to seek assistance in complying with a variety of taxes, rules, and regulations.	Globalization	Lack of in house expertise.
Alliances increasingly will be used by these entities to penetrate new markets, develop/exploit new technologies, etc.	Corporate structure changes	Lack of in-house resources/expertise.
Preparers will establish numerous EDI linkages with other entities in their value chain.	Connectivity	Such linkages will provide an efficient and effective means for transacting business.
III. Implications for CPAs:		
A. Similarities between today's vs. 2006's role of CPAs:		
CPAs will assist the small business in presenting the entity's financial information to lenders.		A present service that is expected to continue.
CPA will act as the company's "outside" accountant and as trusted advisor on taxes, regulations, and business systems and operations.		CPAs presently "own" this franchise for this type of entity and are expected to maintain it.
CPAs will assist in purchasing and implementing computer systems (hardware and software) and will provide assurance that the systems are adequately controlled.		Represents a natural extension of present services provided with respect to computerized accounting packages.
B. Major changes between today's vs. 2006's role of CPAs:		
The CPA's role will move away from assistance in information preparation tasks involving financial information to assistance in understanding what the numbers mean, including the development and interpretation of benchmarking information.	Demands of professional managers	To add value to financial information, the CPA will need to move up the "information value chain."
The CPA's role will expand into other areas of company performance, initially concentrating on assisting clients in designing and implementing "relevant" measures (i.e., development of measurement criteria and systems to prepare the information).	Demands of professional managers	To assume this role, the profession needs to begin the development of measurement criteria for additional dimensions of company performance.
CPAs will assist companies involved in global electronic commerce in complying with a complex web of international taxes, rules, and regulations.	Globalization	This compliance work provides an entering wedge for a variety of related services involving global issues that could be provided by CPAs (e.g., optimal shipping distribution strategies, tax minimization strategies, etc.).
CPAs will assist clients in protecting against risks involved in electronic commerce.	Increase in electronic commerce	Electronic commerce introduces new types of risks involving authentication, trustholding, and privacy.

Table 4

Scenario 3 for the Year 2006

Small, Privately-Held Company, Owner-based Financing

Entity characteristics: Very small, privately-held, owner-managed company; one location; financing based on credit-worthiness of owner(s); markets may be global; financially less sophisticated

Elements of scenario 3	Drivers/enablers of major changes	Rationale/commentary re: scenario elements
I. Users (includes lenders, suppliers, customers, bonding companies, alliance partners, family members (nonmanagers), and the owner/manager):		
A. Similarities between today's vs. 2006's users:		
Lenders will want personal financial information (and periodic updates of that information) as a basis for granting larger credits.		A defining characteristic of this entity involves owner guarantees, i.e., lenders look to the owner rather than to the enterprise to manage credit risk.
Lenders will demand some degree of CPA involvement — tailored to specific lender needs (i.e., agreed-upon-procedures engagements) — with respect to personal and company financial information related to larger credits.		• Tailored auditor involvement takes place today and is expected to grow in importance as users increasingly reject the "one-size-fits-all" reporting/audit model. • Credit scoring (see below) will not apply to larger credits.
Other users — bonding companies, alliance partners, family members (nonmanagers), etc. may require audits to protect their interests.		In special cases, major concerns regarding preparer potential conflicts of interest will drive user demands for audits.
B. Major changes between today's vs. 2006's users:		
Competition among lenders for small business loans will intensify.	Intensifying competition globally	Large banks are challenging the notion that small businesses are so tough to analyze that face-to-face contact is a necessity.
Lenders will increasingly use "credit scoring" techniques for unsecured loans (using personal "owner" variables), and may monitor such loans and "credit scores" through electronic linkages with the entity.	• Advances in computer modeling • Connectivity	See previous comment.
Significant suppliers and customers will become connected with the entity and will demand defined views of the entity's information as a means of monitoring credit risk and the risk of interrupted supply.	Connectivity	Advances in EDI and intranets will make such linkages efficient and effective.

II. Preparers		
A. Similarities between today's vs. 2006's preparers:		
Preparers will negotiate with lenders, suppliers, customers, alliance partners, and other users regarding the nature of personal and company information to be provided, its timing, and the nature of CPA assurance, if any.		Such negotiated solutions take place today and will continue as a means of moving away from the "one-size-fits-all" reporting/audit model.
In instances where an audit is required, preparers will increasingly demand more "value-added" from an audit.		Preparers view auditors as "knowing more than they say."
The owner/manager will continue to play a key "hands on" role in the company's control system.		The owner's day-to-day involvement provides the knowledge necessary to identify "exceptions."
Preparers will seek assurance that internal systems are adequately controlled, including systems involved in electronic commerce.		Such assurance is a natural extension of assurance sought today on computerized accounting systems.
B. Major changes between today's vs. 2006's preparers:		
Entities will increasingly be owner/managed by professionals.	Availability of professionals from downsizing, spinoffs, etc.	As the cost of starting a company declines, trained people who have an entrepreneurial interest will strike out on their own.
Internal information systems will be expanded to provide the owner/manager with a more comprehensive set of performance information — both historical and prospective.	• Improvements and cost reductions in integrated enterprise software • Intensity of competition	• Professional managers who have moved from larger companies will be accustomed to having access to such information. • The preparer's information set is expected to expand to include other (nonfinancial) performance measures.
Owner/managers will have an increasing need for benchmarking/profitability information to access company performance.	Intensity of competition	See previous comment.
Involvement in electronic commerce will rapidly increase and provide the vehicle for global expansion of markets.	• Increase in electronic commerce • Globalization	The creation of an electronic presence will become increasingly cost effective compared to creating a physical presence in multiple foreign locations.
Increasing penetration into international markets will lead owner/managers to seek assistance in complying with a variety	Globalization	

of taxes, rules, and regulations.		
Alliances increasingly will be used by these entities to penetrate new markets, develop/exploit new technologies, etc.	Corporate structure changes	Lack of in-house resources/expertise.
III. Implications for CPAs:		
A. Similarities between today's vs. 2006's role of CPAs:		
CPAs will assist the owner in presenting personal and company financial information to lenders.		A present service that is expected to continue.
CPA will act as the company's "outside" accountant and as trusted advisor to the owner/manager on taxes, regulations, and business systems and operations.		CPAs presently "own" this franchise for this type of entity and are expected to maintain it.
CPAs will assist in purchasing and implementing computer systems (hardware and software) and will provide assurance to the owner/manager that the systems are adequately controlled.		Represents a natural extension of present services provided with respect to computerized accounting packages.
B. Major changes between today's vs. 2006's role of CPAs:		
The CPA's role will move away from assistance in information preparation tasks involving financial information to assistance in understanding what the numbers mean, including the development and interpretation of benchmarking information.	Demands of the professional owner/manager	To add value to financial information, the CPA will need to move up the "information value chain."
The CPA's role will expand into other areas of company performance (see report — Comprehensive Reporting Model figure), initially concentrating on assisting clients in designing and implementing "relevant" measures (i.e., development of measurement criteria and systems to prepare the information).	Demands the professional owner/manager	To assume this role, the profession needs to begin the development of measurement criteria for additional dimensions of company performance.
CPAs will assist companies involved in global electronic commerce in complying with a complex web of international taxes, rules, and regulations.	Globalization	This compliance work will provide an opportunity for a variety of related services involving global issues that could be provided by CPAs (e.g., optimal shipping distribution strategies, tax minimization strategies, etc.).
CPAs will assist clients in protecting against risks involved in electronic commerce.	Increase in electronic commerce	Electronic commerce introduces new types of risks involving authentication, trustholding, and privacy.

Table 5

Scenario 4 for the Year 2006

Small Local Governmental Unit

Entity characteristics: Small, local governmental unit; financially less sophisticated

Elements of scenario 4	**Drivers/enablers of major changes**	**Rationale/commentary re: scenario elements**
I. Users (includes citizens, federal and state funding agencies, municipal bond investors, insurers, and analysts, and the entity's management):		
A. Similarities between today's vs. 2006's users:		
Users will continue to look to the Single Audit Act as the key test of a local government unit's integrity.		Users will continue to be concerned about fraud and illegal acts, compliance with provisions of grants, and financial distress.
B. Major changes between today's vs. 2006's users:		
Users will have major concerns about the performance of governmental units in terms of funds spent vs. outcomes.	Accountability	Concerns about accountability will translate into demands for periodic information about funds spent vs. outcomes.
II. Preparers		
A. Similarities between today's vs. 2006's preparers:		
Preparers will resist making changes in the information set currently being reported , which will be seen as changing the "rules of the game."		Proposed new performance measures may actually shed favorable light on a particular entity leading to increased budget requests, in which case those new measures will be embraced.
Preparers will continue to be asked to do more with less, which will have a dampening effect on introducing new information technologies.		Although the introduction of new information technology may lead to efficiencies, the significant up-front investment may discourage its use.
III. Implications for CPAs:		
A. Similarities between today's vs. 2006's role of CPAs:		
Audits according to the Single Audit Act will continue (after-the-fact), but with increased thresholds regarding local government entity involvement.		
B. Major changes between today's vs. 2006's role of CPAs:		
CPAs will face increasing demands for performance audits of	Accountability	

local government units.		

A Model for CPA Firms to Turn Needs Into Services

The Special Committee on Assurance Services has identified and defined several assurance services for CPAs. But CPAs need not depend on a professional association to identify new service opportunities. Although institutional efforts have some advantages in providing visibility for the service and consistency among firms, the opportunities identified might not be relevant to every practitioner. To provide a steady stream of relevant new services, individual firms and practitioners can develop their own opportunities by analyzing client and potential client needs and their own abilities.

This section summarizes the factors the Committee considered in identifying new service concepts. The Committee's approach can be adapted by firms trying to identify new markets for themselves.

Minimum Requirements

New service opportunities arise from the coalescence of the following factors:

- A customer need.
- A CPA who can fill that need.
- The customer's perception that the CPA's service is worth more than it costs.

Customer Needs

Customers are people who use information to make decisions. They might or might not actually be the ones who pay for the services provided. The Committee focused on customers, rather than clients, because the latter implies the party that pays for the service. Often, CPA services are intended to meet the needs of someone other than the client.

In the absence of a statutory or regulatory demand, new services that are created can be sold only if they respond to customers' needs. Customers will always find ways to have their valid needs satisfied. The key for the CPA is to identify the needs that he or she can fulfill better, more timely, or more efficiently than other potential solution providers.

One good way to find out what customers need is to ask them. The checklist in Appendix A is one approach to finding out what information customers need but either can't get or are dissatisfied with. There is a potential to provide a service anytime a customer either needs information that it can't get or is not satisfied with the information it uses.

Asking clients about their needs is a form of market research that can be done inexpensively. It can provide a source of data that can be used to design new services. The data can also be extrapolated to other clients — or nonclients — in the same industry or with similar characteristics.

The Committee conducted a series of interviews with information customers and found many needs for information. The Committee's interviews can provide a starting point to think about common needs. But it yields only a very broad gauge of the market. The interviews were conducted with persons in many facets of commerce and government, all over the country. A greater concentration of some types of customers (for example, CEOs or creditors) or specific regions of the country might have provided more insight for specific potential services. Also, probing more deeply into some of the areas discussed might have surfaced additional useful data. The Committee's goal, however, was to scan broadly across customer types and needs.

Unlike firms, the Committee did not expect to deliver services to specific customers. Nonetheless, some of the general areas of needs expressed by management included the following. (More detail on these interviews is provided in Analysis of Interviews with Potential Assurance Customers.)

- Quality of internal systems; that is, whether the systems used to generate information for management decision-making provide reliable information that is relevant and useful to the issues at hand.
- Quality of products; that is, whether the products the organization buys are the best of comparable products and whether the organization can demonstrate that the products it sells are high quality.
- Information about risk; organizations fear surprises above everything else, they consistently asked for more comprehensive information about the risks they face.
- Comparison of results to the entity's industry; entities wanted information to help them compare their performance to their peers in order to put their results in context and create benchmarks for improving performance.
- Assistance in navigating the information produced; many decision makers did not lack information — they had more than they could digest. They wanted a way to sort the significant from the unimportant.

There is a limitation to identifying new services based solely on stated needs: Customers typically identify only their *existing* needs They are less able to articulate latent needs or needs that will arise in the near future. By anticipating future needs a practitioner can get ahead of the curve and have services developed and pilot-tested by the time needs become acute.

To try to anticipate additional, but unstated, needs, the Committee studied the trends that are expected to affect the need for information in the future. It identified the following trends (see Megatrends Affecting Future Assurance Services):

- ***Information technology***. Information technology capabilities will continue to advance, and costs will continue to decline.

- *Corporate structure*. New business paradigms will result in different types of relationships; there will be more alliances and joint ventures, temporary organizations, and similar types of operations.
- ***Accountability***. There will be a steady increase in demands for accountability throughout society.
- ***Investment capital***. Capital flows are changing; principals will have new relationships, concerns, and accountabilities.
- ***Aging of the U.S. population***. The population is aging. The average age is increasing, and there will be a concentration of people in higher age groups.
- ***Globalization***. There will be increasing international trade and cross-border activities.
- ***Education***. Educational achievement in the United States (particularly in public school K-12) is declining and will not improve appreciably in the foreseeable future.

By analyzing the trends, the Committee was able to identify possible new service opportunities that were not raised during the customer interviews.

For example, it identified ElderCare Plus services as a potential new line by juxtaposing:
- the aging of the population,
- the concentration of wealth in the older population,
- the mobility of U.S. population, and
- the children's needs for accountability by those who serve their parents.

It thus became apparent that children need some assurance that their parents health and financial needs were being taken care of.

Similarly, considering:
- the needs for information about product quality,
- increasing demands for accountability,
- the aging of the population, and
- and changes in the health care delivery system,

the Committee was able to identify the need for assurance about health care effectiveness.

Identifying a specific service based on needs is a creative process. The best services might not be designed by asking, "what can I do?" but rather, "what would the customer love?" The latter approach focuses on the customers needs and challenges the CPA to find a way to best fulfill them.

Assurance services involve the improvement of information quality. The CPA can improve information by providing more reliable information (or providing information about its reliability) or more relevant information (or providing information about its relevance). Or, the CPA can improve its context; that is, the format of the information or the decision model in which it is used. The service can deal with discrete data or with systems, be financial or nonfinancial information, historical or prospective information.

Determining Market Attractiveness

The CPA needs to consider the attractiveness of the potential market. Factors to consider include market size, potential growth rate, engagement profitability, risks to the CPA, and coordination with the CPA firm's strategy.

Market Size

Forming an idea of the potential market size is an important first step in determining whether to expend the effort to develop a new service. Estimating market size combines science and art. It might be a straightforward exercise to price a one-off engagement by estimating the number of hours involved and the billing rate to be applied. However, this works because the number of engagements (one) and the method of fee determination (hours expended) are implicit. New market opportunities are more challenging: Customer volume is undetermined and the method of calculating fees is not established.

There are several ways to estimate potential market size. For example,

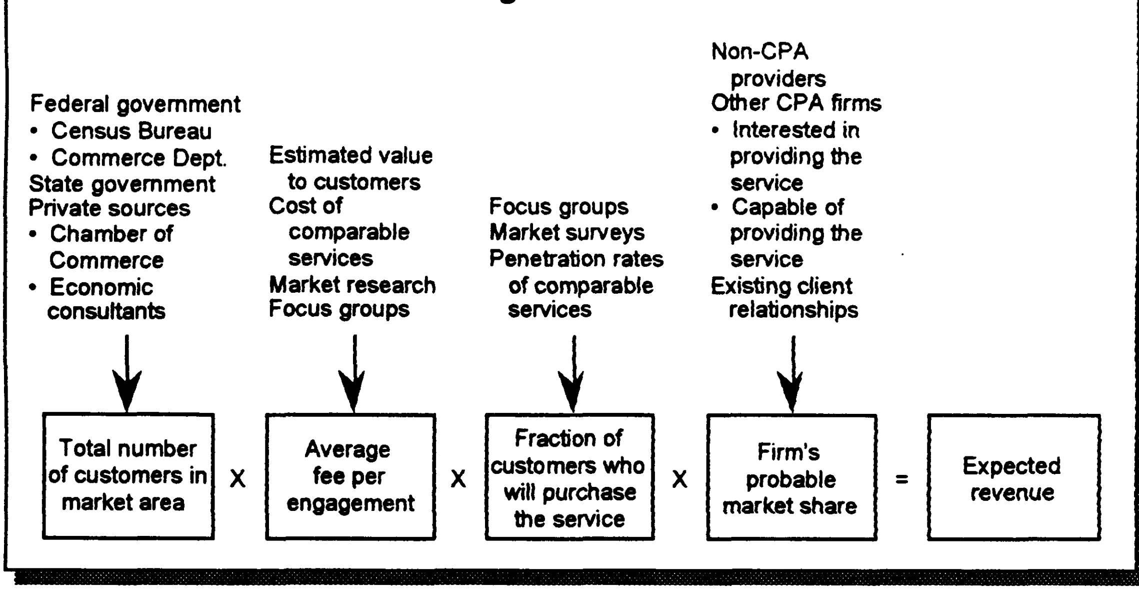
- Estimate the number of potential or likely customers and the fee they are likely to tolerate. For example, if the service is aimed at auto dealers, the CPA can readily determine the number of dealerships in his or her service area.
- Estimate the current expenditures for an existing, but less satisfactory, service the CPA wants to replace. For example, if the CPA service involved dispute resolution and was intended to replace an unwieldy and unpredictable legal process, the CPA could use the cost of the existing process as a basis for estimating the market. That is, if users are currently willing to spend $X on a system they don't like, they would probably be willing to spend at least that much on a system they found more satisfactory.
- Estimate the total dollar amount at risk due to the lack of quality information and the likely fee for reducing the risk. Estimating the amount at risk usually is straightforward. Estimating the amount a person would pay for reducing the risk is much more subjective. For example, a person buying $1 million of government bonds might be willing to pay a few (say, 5) basis points because the information-quality uncertainty is low. This implies a market price of $500 ($1 million x .0005) per transaction. On the other hand, consider a person paying $1 million for an oil painting claimed to be by Rembrandt. The information-quality uncertainty is high and the person might be willing to pay a few (say, 5) *percentage* points for relevant assurance. This implies a market price of $ 50,000 ($1 million x .05) for the same amount at risk. One starting point to estimate the amount someone would pay for risk reduction is the fee charged for current audit clients. The amount they are willing to pay is related to the level of risk (and the cost of capital, which, for simplicity is ignored here). The ratio of the audit fee to the amount at risk (debt or market capitalization) provides a starting point for estimating the amount someone will pay for information-quality risk reduction.

The resulting market size estimates are necessarily soft. But they may be sufficient for their intended purpose — providing information to help the CPA decide whether the opportunity is sufficiently large to justify further development of the service.

The best source of clients is the CPA's existing client base. However, the CPA can reach beyond that base if the service is sufficiently attractive. Common outreach methods include:

- Advertising
- Public relations
- Referral sources
- Web sites that have useful content for potential clients.

In considering market size, the CPA can estimate the expected market by comparing it to the potential market. The potential market represents all potential buyers. The expected market is only those buyers who can be expected to buy the service in the near term.



Estimating Market Potential

For example, if a practitioner develops an assurance service designed for physicians, a starting point for estimating the market would be the total number of physicians in the area. The practitioner would also consider whether to include clinics or other types of medical organizations in the potential market.

The potential market would be reduced for those physicians who wouldn't buy the service because, for example, their operations are too small to justify the cost or they don't need the decision-making information that would result. The market would also be reduced for those who get a similar service from another source, such as another CPA, a nonCPA, or by using specialized computer software.

Most practice units define markets in terms of potential local clients. However, if the service is sufficiently distinctive, potential markets can be defined much more broadly. In fact, with the rise in electronic commerce, it is not unreasonable to consider a market unconstrained by geography. However, there may be additional concerns, such as licensing requirements and unfamiliar legal jurisdictions, that should be considered when providing services to remote clients.

Growth

Potential growth might come from increasing the pool of potential buyers through growth in that class of customer or by making the service more attractive to other classes of buyers. Or, it might come from decreasing those who won't buy or who buy from someone else. This is accomplished through competitive advantage — making the service more responsive to customers' needs or decreasing the cost.

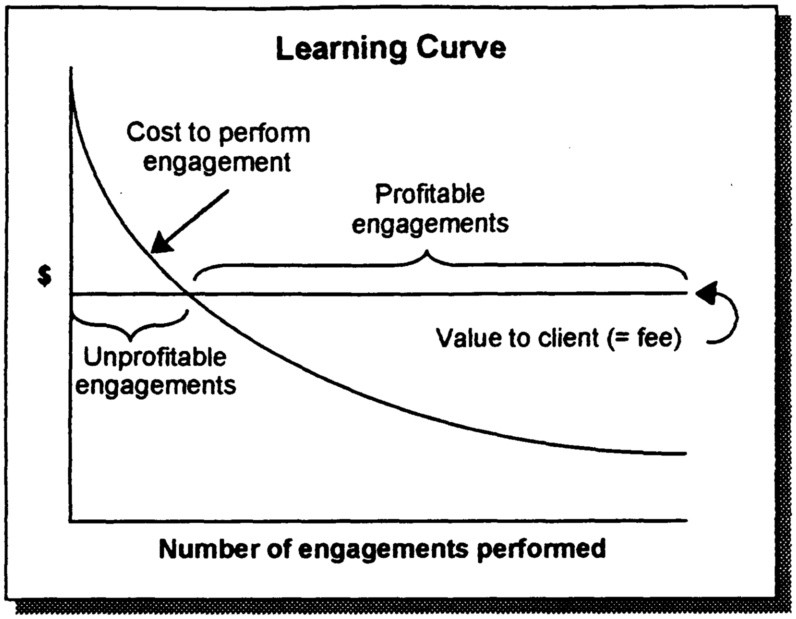
Existing or emerging trends, such as information technology, and other factors, such as the emergence of competitors, should be considered when figuring whether a new service will be attractive over the long term.

Profitability

Determining potential costs takes into account:

- Personnel costs needed to deliver the service.
- Technology costs.
- Opportunity costs, when resources are limited.
- Risks, such as litigation or professional liability. These risks can never be eliminated entirely. The Committee has developed a template for identifying, assessing, and reducing litigation risk. (See Appendix B.)

The practitioner should take the learning curve into account. The cost of providing a service generally decreases as the practitioner gains experience. A typical learning curve looks this:



Accordingly, the practitioner might be willing to incur some losses in service development and initial introduction if the service can eventually be delivered for less than its value to clients.

The CPA firm also needs to consider its reputation and image. For example, a firm that has established a boutique, high margin practice would think twice before unveiling a service based on high volumes and low margins.

Toting It Up

The most promising candidates are those services that are likely to generate large individual fees (relative to costs) and can be provided to several clients. Obviously, the more attractive the market, the greater the incentive for the CPA to actually develop and deliver the service. Market attractiveness is shown on the vertical axis in the diagram below.

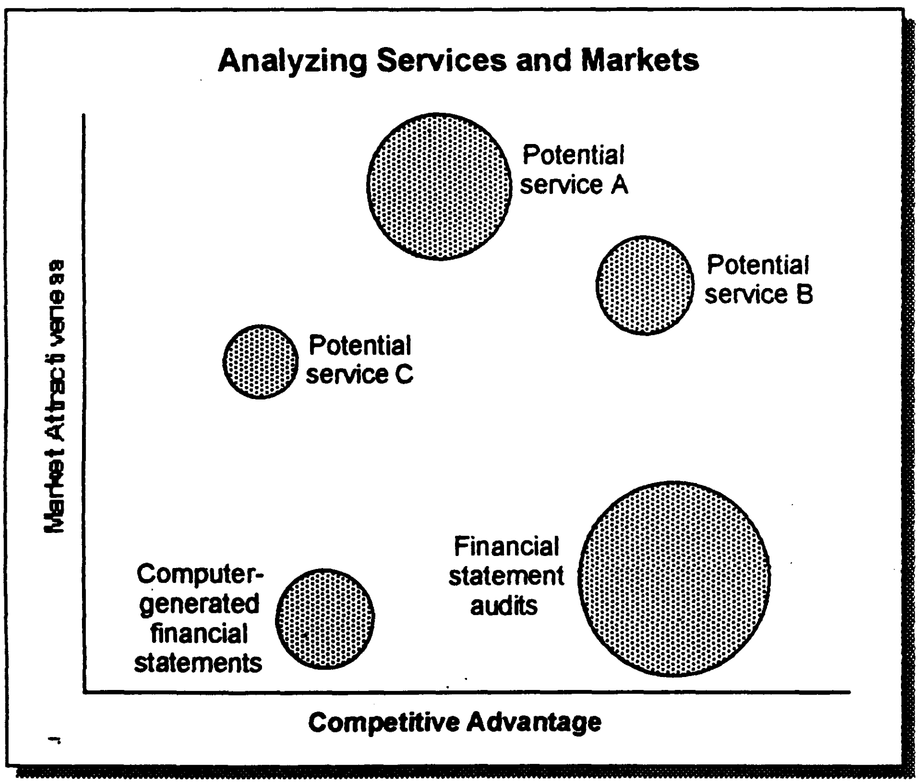
Competitive Advantage

The CPA should consider whether the firm has a competitive advantage against other potential providers of the service. This is critical. In many new services, CPAs compete not only with each other, but with other, unregulated, information providers. If the CPA has no competitive advantage against other providers, the service will be ultimately unsustainable or unprofitable.

An example of a lack of competitive advantage is a service that consists primarily of data processing. NonCPA competitors that are large organizations with substantial technology investments have economies of scale that allow them to compete primarily on price. Accordingly, they might hold the advantage in such commodity-like services. On the other hand, such organizations would likely be at a disadvantage when competing with CPAs for services involving independence, professional judgment, and reporting on the results of the engagement. Also, those organizations generally have less capability in advising high-level decision-makers.

CPAs should be wary of potential services that range far afield from traditional CPA services. They can compete best when the potential service relies, at least in part, on the knowledge or skills commonly associated with CPAs.

In analyzing potential opportunities, a firm might develop the following model for its existing and potential services (the size of the circles is proportionate to near-term market size).



The result of this exercise is a map of alternative opportunities. Using it, a firm can determine which alternatives fit best with its strategy, strengths, and needs. For example, a firm might choose to commit its resources to developing a potential market even though it is smaller than another one because it is more attractive or because the firm has a greater competitive advantage over other information providers.

For the ElderCare Plus service, for example, the Committee determined that:

- The potential national market is very large, estimated in the billions of dollars. The potential market is estimated to grow. The demographics of the population are well

established — all the potential senior citizens have already been born; their numbers are reliably documented. Also, seniors' wealth is accumulating.
- The service is consistent with existing competencies (testing and reporting on assertions).
- There are no significant barriers to market access (no legal or regulatory prohibitions, potential clients are similar to the types of clients for whom CPAs historically have provided tax or small business services).
- CPAs have a competitive advantage over other potential providers (position of trust, no ulterior motives).
- There are no other dominant players in the market.

The ElderCare Plus service would occupy roughly the space designated as "Potential service A" if the figure above were developed for the CPA profession as a whole. "Potential service B" would represent a smaller and less attractive service, but one in which CPAs hold a greater competitive advantage (perhaps because the service is closer to traditional financial statement services).

As new service opportunities move away from traditional accounting, auditing, and tax services some users may have trouble understanding why CPAs should be considered preferred providers. The only way to overcome this resistance may be to offer the service (perhaps at reduced rates) and demonstrate the value tangibly. Eventually the way to create market acceptance might be through a successful track record.

If a strong brand identity between the service and CPAs can be established, then it may be possible to achieve effective market dominance in the service area and discourage potential nonCPA competitors. Factors that contribute to dominant brand association include the following:
- Being first with the service.
- Being the best or most cost-effective provider.
- Establishing and maintaining the definitive set of practice or measurement standards.
- Convincing the customer that the new service is really an extension of the already established and dominant branded service, for example, tax planning as an extension of tax compliance.

The AICPA can also help in branding services through publicity, training, and standards. However, firms need not wait on the Institute.

A Template
A template listing factors that practitioners might consider in developing a service opportunity appears in Appendix C.

Creating a Service Model

A specific service model must then be created. The service should be (1) responsive to the information needs identified, (2) within the CPA's competencies, and (3) consistent with the CPA's need to maintain his or her reputation.

CPA firms often comprise diverse sets of competencies. They generally include traditional functions tested on the CPA examination, but often are broader. (The Committee identified 19 typical auditor competencies; see The Profession's Current Competencies.) A firm's specific competencies might make some markets particularly attractive. Or, the firm might identify the need to acquire additional competencies through training. Many firms also employ nonCPA specialists to provide additional expertise.

The existence of standards or regulations should also be considered in developing a service model. Such rules should, of course, be followed when they apply. The lack of standards or other rules can, depending on the circumstances, be either a blessing or a curse. For instance, the lack of standards in some areas allows flexibility in meeting customer needs. Their absence in other areas, such as the lack of meaningful measurement criteria, can render uninformative an otherwise useful service.

The Committee applied this approach in developing the ElderCare Plus service model, for example, and considered that:

- There were no established or universal measurement standards. Each family has its own concerns. So the service calls for families to decide what is to be reported.
- Many persons who provide important services to the elderly have interests that conflict with the best interests of the seniors. The CPA's only concern — other than the welfare of the elderly person — is the quality of the information communicated to the family. So the service can focus on communications about whether others have fulfilled their responsibilities to the senior.
- The CPA's position of trust is critical to this service. That trust can be maintained only if the CPA explicitly disavows any interest in the estate.
- A significant concern of potential heirs is protection of the senior's assets. So the CPA can bring his or her financial expertise to bear in overseeing the finances.
- Related services could emanate from the basics described here. For example, directly providing services is only slightly removed from overseeing others. Users could still rely on the CPA's position of trust and financial expertise in these services.

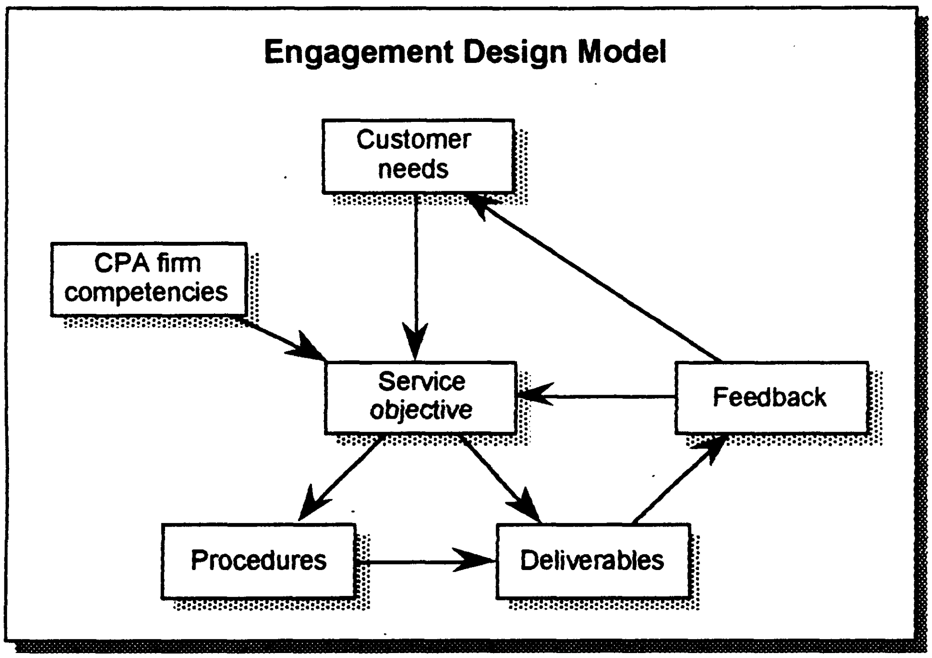
Determining How to Compete

Determining how to compete in the market is generally up to each individual firm. It is based on the firm's local competitive situation, the strengths of its staff, and its ability to deliver a quality service. CPA firm associations might help in developing marketing approaches.

The Committee has attempted to provide some assistance in this area. It has described some specific services, begun efforts to brand them as CPA services in the public mind, and developed some practice aids to help CPAs promote and deliver the services.

Engagement Design

After the needs and markets have been established, the specific procedures to be applied need to be designed and deliverables identified. The graphic below depicts a rational process for designing a service.



The service objective represents the value to the client. It is identified by analyzing the customers' unmet needs and the CPA firm's competencies.

The service objective implies an appropriate scope of procedures and an apt deliverable (such as a report) to accomplish the service objective. The deliverable must be supported by the procedures applied.

Because these services are not generally subject to general purpose reporting standards, it is important that customers be involved in service design. Accordingly, customer needs are considered in service objective creation and again when the deliverable is produced. Feedback is important in making sure that the service meets the client's needs and in refining the service.

Customer feedback helps to determine whether the services are adequately meeting customer needs. If they aren't, the service will ultimately be unsuccessful. Customer feedback, on the other hand, might suggest additional service opportunities. Methods that might be considered in soliciting customer feedback include:

- Interviewing clients in-person or by telephone. Interviews should be conducted by someone unconnected with the firm or by a senior-level firm member not involved in the engagement.
- Sending surveys to clients at the conclusion of engagements.
- Convening panels of clients with similar needs to discuss ways to improve the services. The panels might be run by firm personnel or by a professional focus group moderator.

The results of the customer feedback should be communicated to firm personnel to serve as the basis for improving service delivery.

Establishing Value

The CPA needs to demonstrate the value of the service delivered. The best way to highlight the value is through a tangible benefit to the customer. This means providing information that the customer didn't have before but now finds he or she can't do without.

Pricing the service should preferably take into account the value established. Although many firms bill their services based on an hourly rate that reflects their costs multiplied by the number of hours spent on the engagement, the time involved often doesn't correlate with the benefit perceived by the client. And the firm's cost structure is of no interest to the client. Accordingly, other models might be considered. Keep in mind, though: The models discussed below might be inappropriate in some kinds of services or might not comply with the accountancy laws in some jurisdictions.

Factors to be considered in creating a pricing model include:

- Who pays the bill.
- How the fee is calculated.

The CPA could bill the users, rather than the information provider, for the service. This approach has the advantage of aligning the fee and the service objective. A problem with the current billing arrangements for auditing services is that generally the payer's primary benefit from an audit is access to reasonably-priced capital; the improvement of information quality (the goal of the assurance service) is obtained by someone who doesn't directly pay for the service.

Some unusual methods of pricing that might be considered include:

- Charging the user a percentage of the transaction's value. For example, if the user made a $100,000 investment based on the CPA's audit, the user would pay a fee of, say, $1,000 to the auditor.

- Separating the information from the assurance. Thus, users could get information but would have to pay for the assurance separately; they would pay for the value of the assurance (the CPA's contribution), not the information.

- Variable pricing based on the level of assurance (for example, users would pay $X for review level assurance, $2X for audit level).

- Selling the documents containing the assurance. Instead of information providers paying for the service and providing the information and assurance to users, the CPA would provide both the information and assurance to the user directly for a fee.

- Participation in the transactions. For example, if a CPA designed a system, he or she could get a royalty each time the system was used. Or, if the CPA reported or otherwise provided assurance on a system, he or she could be paid each time it was used.

Appendix A
Checklist for Needs Identification

Clients make decisions based on information. The information might be financial or nonfinancial, relate to data or systems, or come from internal or external sources. The information clients actually use is often not directly relevant to their problems or not reliable. But they use it because better information has not been developed or because they haven't linked their decision needs with the range of available information. Assisting clients to identify information needs and then finding or developing the information can be a high-value service.

The following questions should be asked during a typical client service engagement. Depending on the client relationship, they might be asked during a formal meeting or informal lunch with the controller, CFO, CEO, or other executive. In any case, notes should be taken in order to communicate the importance of the discussion, to assist in the follow-up discussions, and in later documentation of suggestions.

- ❑ What important business decisions keep you awake at night?
- ❑ For each type of decision: What kind of information is most helpful to you in making the decision?
  - ❑ Who provides it?
  - ❑ Is it adequate, or do you feel you're flying blind?
  - ❑ How do you know if it's accurate?
  - ❑ Is it useful in the format in which you get it?
  - ❑ What other information would be helpful that you can't or don't get?
- ❑ Is the information you need about operations readily, regularly, and quickly available?
- ❑ Is it adequate to:
  - ❑ Compare with prior periods?
  - ❑ Measure against goals and benchmarks?
  - ❑ Compare with competitors?
- ❑ Do you need information from outsiders, such as customers or suppliers?
  - ❑ Can you easily obtain the information?
  - ❑ Is it reliable?
- ❑ What information do you need about:
  - Relationships (for example, suppliers, customers, partners, labor)
  - Outputs (for example, product quality, customer satisfaction)
  - Markets (for example, competitors, market share, customer preferences, technologies)
  - ❑ How do you obtain it?
  - ❑ How do you know if it's accurate?

- ❑ Is it useful?
- ❑ What would make the information more useful or valuable to you?

Produced by the AICPA Special Committee on Assurance Services

Appendix B
Risk Assessment Template

Identify risk

Lawsuits from:
- client
- third-party users (including regulators)
- regulators (users)
- others (client associates, trading partners, etc.)

Via: contract, tort, "statute"

"Source" the risk

Conflict of interest with present services/clients
Poor quality services
Client/user business risk
Inability to define scope of service (output quality or input required)
Opportunism (strike suits)
Auditor business risk (contentious parties, lack of integrity)

Quantify risk

Monetary significance if adverse event occurs
Likelihood that adverse event will occur

Evaluate risk/reward ratio

Acceptable ratio → accept risk at present level
Unacceptable ratio → avoid service
Acceptable ratio if controlled:
- → avoid aspects of risk via
  - contract limits
  - contract definitions
  - quality control procedures/training
  - client selection
- → price risk to customer
- → insure risk or share via joint venture with other experts
- → alter present (incompatible) services via a portfolio of engagements (or services)

Monitor for changes

Environmental changes
Developing cases
Future service economics (lowering ratio denominator)

Appendix C
Service Opport unity Template

Type of service	
General description	
Who will use the information	
Value to the user	
Who will pay for the service	
Value to the payer	
Cost/benefit to the CPA	
Potential market	
Marketplace permission	
Market access	
Litigation risk	
Need for special competencies	

Produced by the AICPA Special Committee on Assurance Services

A Brief Overview of the Evolution and Status of Auditors' Liability

This report of the Special Committee on Assurance Services consists of 11 sections.

Introduction

The title tells the broad outline of this section. The evolution of auditors' liability will be treated as abbreviated, highly selective history, not seeking earliest roots or comprehensive coverage. The focus will be on the major causes of change in auditors' civil liability, its current status, and efforts to control it. Liability exposure from the CPA's nonaudit services will be treated briefly.

The section's objective is to set the background for the Committee's study of how unreasonable assurance liability can be mitigated and what liability posture is best for a robust assurance function. Although the section's objective is modest, it calls for technical and interpretative statements that are immodest. Books and articles by legal scholars and practicing attorneys should be consulted for detailed, authoritative, and deeper treatment of the issues.

The rationale for auditors' liability rests on the public interest in the effective performance of audits. Flawed financial statements can cause injuries to investors and creditors, and well performed audits can reduce these events. The benefits from reliance on audited information include greater confidence in the capital markets, reduced risk of misallocated capital from faulty information, and a lower cost of capital for corporations. Liability exposure is an incentive to careful work by auditors, so it helps achieve these social benefits. It can also be considered society's due in return for the CPA's monopoly on audit services, even though the rationale for the monopoly (and the regulation that goes with it) is the same public interest in the effective performance of audits.

Partly because of this clot of interests and ideology, the profession has never contended that auditors' liability should be eliminated, even in recent years when the dimensions of liability exposure have threatened the industry's economic viability. Instead the profession has sought its version of fairness and balance, contending that the original balance has become skewed. However, some disagree, holding that reform proposals — some recently made federal law — themselves represent imbalance and unfairness. The latter is not the view taken below, but is held by some public spirited parties, not just by the strike-suit bar.[1]

Legal Sources of Auditors' Liability

Auditors are liable for injuries and damage caused by their work because of responsibilities defined by common law and statute. Common law applications vary in different jurisdictions, and there are both federal and state securities statutes. So a basic characteristic of auditors' liability is that it is not uniform in all jurisdictions, and it is subject to change from a multiplicity of authorities.

Common Law Breach of Contract or Negligence Toward Clients. Much of the story of auditors' liability for negligence that injures clients is similarly the story of third parties' rights to sue auditors, because a key issue is whether the auditor's duty stops at the client or reaches as well to the third party. That issue is discussed next. Putting it aside, auditors are responsible to fulfill their contracts with clients and may be sued for failing to do so. They may also be sued by clients for negligence in tort law for failing to exercise due care. Typically, both charges are brought.

The types of violations that have been actionable include: failure to discover a defalcation or to warn of control weaknesses and issuance of an erroneous report. Suits alleging these violations can also be brought by a party that acquires the client's rights to sue, such as an insurer or trustee in bankruptcy.[2]

If the auditor can prove that the plaintiff's negligence contributed to the injury, the auditor may avoid liability. The auditor may claim, for example, that the client did not properly supervise personnel, disregarded the auditor's recommendations, or had knowledge sufficient to know that reliance on the auditor's opinion was unjustified. However, this defense has not had a great history of success.[3]

Common Law Negligence Toward Third Parties. Depending on the court, the auditor may be liable only to those with whom the auditor was joined by contract (the privity standard), to those the auditor knows will rely on his/her work, or to those the auditor could reasonably foresee would rely on that work. Other plaintiffs have to prove fraud or its equivalent on the part of the auditor.[4]

Recent case law has been friendlier to auditors' financial interests in the privity standard, almost as if in sympathy with the leap in activism by the profession calling for reform. Until these cases, the trend had seemed to worsen.

Most take as a starting point Justice Cardozo's widely quoted view in the 1931 *Ultramares* case, which excluded negligence except when the plaintiff was the client (the party contracting with the auditor or in privity). It allowed only a limited potential exception and was stated eloquently with great influence from the New York Court of Appeals.[5] [13NB] But from the 1960s to the 1980s, Cardozo's privity formulation gradually became eroded by the views and decisions of other authorities. The 1965 draft of the American Law Institute's (ALI's) treatise on torts, influenced by a case in England, defined circumstances that created near-privity relationships, primarily circumstances indicating foreseen reliers on the audit report and foreseen classes of reliers.[6] [13NB] The *Rusch Factors* case held in 1968 that auditors should be held liable for negligence to foreseen reliers on the auditor's work.[7] The ALI treatise on torts issued in 1977 took the position that the auditor should be liable to known third-party reliers, and the view was adopted, sometimes with modifications, by a majority of American courts.

Rosenblum, a New Jersey case in 1983, held in a stronger version that accountants can be held liable for negligence to any person the auditor could reasonably foresee would rely on the audit report.[8]

However, the privity doctrine was reasserted in 1985 by the New York Court of Appeals in *Credit Alliance v. Arthur Andersen*, influencing courts in several states. *Bily*, a 1992 California Supreme Court decision, is also considered very influential. The court restricted liability for a negligent misrepresentation in an audit report to "those persons who act in reliance upon those misrepresentations in a transaction which the auditor intended to influence."[9] Dissenting Justice Kennard's view of the departure from prior treatment was set in alliterative prose:

> Rummaging in the archives of legal history, amidst the debris of discarded dogmas, the majority retrieves and revives, as an element of a cause of action for negligence, the requirement of privity, which this court had described more than 20 years ago as "virtually abandoned in California." (*Hayer v. Flaig....*)

Today, seven states have privity statutes (including New Jersey), five follow a nonstatutory privity or near privity standard, fifteen follow a known reliers standard, two the reasonably foreseeable standard, and the remainder (21) cannot be so completely categorized.[10]

Federal Securities Laws. Auditors may be held liable under the following provisions.[11]

Securities Act of 1933

Section 11. If the registration statement is materially misleading because of misstatements or omissions, issuers and other parties, including auditors, can be found liable to purchasers of the securities. Evidence of "due diligence" (reasonable investigation with reasonable grounds to believe in the truth of the statements) exonerates.

Section 12(2). Those who offer or sell securities are liable for untrue statements or omissions that are misleading to purchasers. Although auditors neither offer nor sell, they may be subject to charges of conspiracy or aiding and abetting, but proof of scienter (guilty knowledge) would be required. The same situation exists with respect to Section 14(a), which prohibits fraud by solicitors of proxies.

Section 17(a). The prohibitions here are substantially the same as in SEC Rule 10b-5, cited below.

Securities Exchange Act of 1934

Section 18(a). Purchasers or sellers of the securities can sue for loss from reliance on a materially false or misleading audit opinion in an application, report, or other document "filed" by a client with the SEC or a securities exchange in compliance with the 1934 Act. If the defendant can show that he or she acted in good faith and did not act with guilty knowledge (scienter), which might include recklessness, the plaintiff's case fails.

Section 10b and related SEC Rule 10b-5. Prohibits using any means to defraud, making materially false or misleading statements through commission or omission, or doing anything that operates as fraud.

These sources of liability evolved into far more powerful instruments than originally intended, and the chief factors in the evolution were not additional legislation. SEC Rule 10b-5 became a primary vehicle for private party suits against accountants, but it was initially adopted in 1942 to enable the SEC to bring enforcement actions against corporate insiders whose fraud entailed purchasing securities.[12] The right of private suits under Section 10 was first found implicit by a Federal district court in 1946.[13] State courts, on the other hand, have not found implied rights of private action where there are no express rights, and the Uniform Securities Act, adopted by over half the states, expressly rejects implied remedies.[14]

The "fraud on the market" theory, which has played an important role in litigation since the late 1980s, was never intended by the legislators who voted for the securities laws of the 1930s. The theory derives from subsequent academic research on the relationship between public information and share prices. The research found that the market price reflects available information. This was applied to the legal requirement that aspiring plaintiffs must have relied on the financial statements to sue for injury from them. The outcome was the conclusion that a plaintiff "relying" on the market price, supposedly reflecting the available information, has met the requirement for reliance without relying on the financial statements. Even before the "fraud on the market" theory took hold, the requirement for proof of reliance had been weakened.[15]

Law governing whether auditors can be guilty of negligence in 10b-5 cases had lacked an anchor until the Supreme Court's *Hochfelder* decision in 1976. The court held that there was no private cause of action for negligence. However, the court did not define exactly what kind of conduct should result in liability. It held there must be "some element of scienter" or guilty knowledge. This opened a range of possibilities spanning deliberate intent, willfulness, knowledge, and recklessness, each with legal meanings and each, in this sequence, a less difficult hurdle for plaintiffs. A trend began toward versions of a recklessness standard. One version defines recklessness as an extreme departure from the standards of ordinary care presenting a danger of misleading financial-statement users which the defendant knew or must have been aware of.[16]

The Economics of Auditors' Securities Liability

Costs net of insurance recoveries not only measure the degree to which auditors' liability threatens the viability of the profession. Through their link to the rate of meritless suits, they are also part of the growth dynamics of the auditors' securities liability problem.

The basic costs are insurance, court awards to plaintiffs, settlements, attorneys' fees and/or salaries, the administrative costs of conducting a defense, the distraction of the litigation (including the downtime of otherwise productive personnel), and damage to the CPA's reputation.

Damage to the CPA's reputation is extraordinarily difficult to measure. Like an accounting asset, a CPA's reputation is a probable source of economic benefits. The benefits come from sales of new business and from retained business. An auditor with a sullied reputation has little to sell, because the name on the audit report does not command the respect among investors needed to facilitate a transaction or reduce the cost of capital.

Reputation is also essential to effective recruiting. Without a flow of quality personnel from colleges and universities, accounting firms cannot over the long-term continue successful operations, much less grow. This will remain true in the future despite the fact that information technology has begun and will continue a trend toward less labor intensive auditing.

Costs in damage to reputations are not merely summed from individual firms' lost business caused by one or more suits against them. The costs are also professionwide. CPAs as a group lose reputation when some among them are found to have participated in fraud or been negligent in performing professional duties. The market permission created by the CPA designation diminishes when the class is associated with the alleged failures of individual practitioners and firms.

The profession's experience with liability insurance moves over the decades from the security of coverage at easily absorbed rates to a version of self-insurance entirely devoted to managing enormous costs over time in the expectation that they will occur. Higher deductibles, higher premiums, lack of availability — all these were regular events from the 1970s on. The insurance problem reflected massive increases in the size of claims and awards. Insurance for 96% of the firms having more than 50 CPAs rose 300% between 1985 and 1992.[17] Deductibles rose nearly six times in the same period.[18] This followed a period of rising rates: Under the AICPA's liability insurance plan the premium for $1 million in coverage for firms with 25 professionals rose from $64 per person in 1980 to $1,160 per person in 1986, during which time the deductible doubled.[19] Doubts about insurance coverage were a wake-up call to the need for reform.

Risk management — in the sense of diminishing the risk that litigation will occur — is a cost of coping with the litigation environment. It can also operate effectively as an audit quality control cost. Apart from motive, the two are often hard to disentangle. Evaluating potential clients out of a business concern for litigation risk and rejecting those with higher risk typically lowers the risk of incorrect opinions — audit risk — as well. The reverse is also true. That is why acceptance and continuance of clients is defined in professional standards as an audit quality control. Measures designed as audit quality control — from recruiting and supervision to consultation and professional development — should affect litigation risk by increasing the likelihood of correct opinions and defensible procedures.

Nevertheless, litigation risk and audit risk are not identical. The risk of litigation caused by suit-prone conditions facing an honest client — say, a liquidity squeeze — should not have a proportional effect on audit risk. The profession has argued that to protect itself against litigation risk it is avoiding "risky" clients. The argument would fall to the ground as an appeal for litigation reform if the auditors' potential opinions on the rejected clients would, with consistency, be materially less correct than other opinions because of audit risk. There would then be little social benefit from the opinions and therefore little social benefit in the requested liability reform.

A different type of risk management takes place after a case has been brought. The goal is to reduce the likelihood that the case will injure the firm economically and to reduce the size of the injury should it become imminent. The task can be different from fighting for justice, because the cost of justice can be economically counterproductive. A few years ago a large accounting firm paid $6 million to be exonerated in court. In significant measure because of such prospects, defendants must weigh the cost of a settlement against the potential costs of seeking exoneration. Moreover, settlement may have to be evaluated in light of a potential judgment for the plaintiff side that may not proportionally reflect the defendant's responsibility for the injury. If joint and several liability is applicable, plaintiffs can claim recompense for all of their losses from partially responsible defendants.[20]

To some extent settlement will always be a business decision. Everyone knows that a good case cannot be guaranteed to win in the courts. But the changes in potential litigation costs over the past generation have given the plaintiff bar an opening to exploit. The costs of pretrial discovery, which grew massively, can be as onerous for the defense of proper performance as for the defense of audit failures. Thus the plaintiff bar knows that even a weak case will force expenses and risks on defendants that encourage settlements and result in contingent fees. That advantage has encouraged meritless suits and weak suits. In 1991 the average 10b-5 settlement by a Big 6 firm was $2.7 million, but the average legal cost per claim was $3.5 million,[21] suggesting that settling was often a sound business decision and that the strike-suit bar had leverage over accountants. Because of the cost advantage held by the plaintiff side, the profession can claim, and has claimed, that its battle for liability reform is a quest for balance and fairness, rather than an attempt to avoid responsibility.

The argument that the costs of justice are a business decision was confirmed from an unexpected source in the past two years. Fee shifting (the loser pays rule) was much discussed in the campaign to reform federal securities liability, and opponents of fee shifting argued that the potential cost would dissuade parties with good cases from seeking justice in the courts. In other words, potential plaintiffs would have to make a business decision based on potential costs that had nothing in their minds to do with the justice of their cases, exactly what the defendant side has been claiming it is forced to do.

As the fee-shifting proposal demonstrates, the costs and benefits of plaintiffs and their attorneys are an important aspect of the economics of auditors' liability. The great change here was the evolution of the class action suit, which underwent a quantum jump since the 1960s made possible by procedural changes and rulings. Contingent fees created a cost-free mechanism for plaintiffs to bring suit. Just as importantly, class actions raised the dollar value per suit, because absent class members (and their losses) are counted in the action unless they opt out.[22] The modern strike-suit bar has depended on the class action suit.

For purposes of initiating a suit, the threshold economic condition is financial injury. Dollar losses in these cases typically come from declines in stock value. The declines can come from discovered fraudulent overstatements. But they can also come from honestly disclosed reductions in profits. Declines in profits have over the years been very much tied to troughs in the business cycle, which typically contract sales. In such conditions, bankruptcy is the harshest outcome. The threat of insolvency can be a motive for fraudulent overstatement. However, honest mismanagement is always a possible source of bankruptcy or declining profitability and stock value regardless of the point in the curve of the business cycle. In addition, individual industries can fall prey to economic problems not shared by the economy as a whole or not shared in the same degree. This happened to the REITs in the 1970s and to the S&Ls in the 1980s. Finally, industries with inherently volatile swings in profitability and prospects are characterized by corresponding swings in stock values.

Auditors' Performance

Bad auditing is a source of auditors' liability. Not all suits against auditors are frivolous or otherwise unfounded, and when they are not, CPAs bear responsibility for the injuries inflicted by their reports. Thus, the public is right to link litigation with poor audit performance in some proportion of the cases that occur. What proportion?

The profession has a great stake in demonstrating that the quality of auditing is either stable or improving and an even greater stake in demonstrating that it is of high quality. Evidence that audits are of consistently high quality would help maintain the profession's reputation at times when alleged audit failures are given heavy and lingering press coverage. Such evidence might also be used to justify downward modifications of liability. It would enable public policy makers to distinguish between the exception and the rule on audit quality, and it would enable them to monitor whether lower liability burdens are compatible with a desired level of audit quality. Finally, the profession must always know whether performance has fallen to a degree that requires remedial steps for the sake of controlling liability exposure as well as for its other missions.

Research by Bill Kinney and Roger Martin analyzing studies of audit adjustments showed convincingly that the audits in their populations significantly reduced overstatement bias in financial reports.[23] The research, published in 1994, analyzed nine data sets from more than 1,500 audits across 15 years. The research was not intended as a form of monitoring recent performance. The latest data were from 1988 audits.

The only systematic, professionwide approach to monitoring recent audit quality at this time is peer review. Peer review evaluates audit quality controls, and the evaluation includes studying a sample of engagements. However, it is not clear that the public and regulators have overwhelming confidence in audit quality based on their belief in peer review's effectiveness and results. The SEC's annual endorsement, saying that peer review contributes to audit quality, has not appeared to win over public policy makers, and it has at times coexisted with criticisms from SEC personnel. The Public Oversight Board's annual endorsements of peer review and even its virtual participation in the process have not minimized criticisms. Moreover, the POB has in one sense been inconstant in its treatment of peer review. If peer review occupied the place it ideally should, the POB would never have created an Advisory Panel on Auditor Independence (Kirk Panel) in 1994. Peer review would have been sufficient reassurance to those uncertain about this identified element of audit quality control. In any case, peer review has not won hoped for authority as a reliable measure of audit quality.

Auditors' Responsibilities

The duty of care alleged to be violated in liability actions is bound up with the definition of professional obligations. The auditor typically holds in litigation that performance met the standard of care because it complied with GAAS and GAAP. However, case law has eroded somewhat the GAAS-GAAP defense. The issue was discussed and written about in the mid-1970s after a series of cases deviated from using professionally recognized standards as absolute criteria to judge auditors' performance. As one expert put it, "[A set of decisions suggest that] an accountant may be found to have violated the law notwithstanding his adherence to generally accepted auditing standards and accounting principles; he must also undertake to do whatever it is that the trier of fact may later deem to be 'fair.'"[24]

The erosion of the GAAS-GAAP defense may be less of a problem than it appeared in the 1970s because the typical case does not go to trial. In addition, the trend toward charging violations of procedures prescribed by the auditors' firm may have displaced charging violations of GAAS and GAAP to some degree. In any case, the Causeys, viewing the problem in 1995, maintained that compliance with GAAS and GAAP is not a conclusive defense, that the jury "remains free to evaluate the accountants' conduct."[25]

A valid claim to have complied with professional standards is still essential for auditor defendants. But views of the relationship between standards and liability have not been uniform.

Over the years some have noted a reluctance on the part of the profession to define responsibilities more clearly or to take on additional responsibilities because of the fear of litigation.[26] In a 1992 paper, the six largest accounting firms said they could not support any additions to auditors' responsibilities unless they were accompanied by comprehensive liability reform.[27] A variation of this view holds that the more detailed the standards and other requirements, the easier it is for experts to allege and demonstrate fault, creating a vulnerability that is exploited during pretrial discovery. Others have argued that auditors with liability avoidance in mind are increasingly seeking rules in order to make the audit more compliance oriented and less judgmental, which suggests that defined responsibilities can be an advantage in controlling liability.[28] A third view is there is little additional risk in defining as new responsibilities what courts are already holding auditors responsible for.

Some extensions of auditors' responsibilities are arguably responses to court actions.[29] The so-called "expectation gap" standards in 1988 openly attempted to increase auditors' responsibilities.[30] For example, after many years of proclaiming that business failure is not audit failure, the profession adopted an obligation to evaluate clients' solvency.[31]

It would be helpful to have in hand whatever desirable policy can be inferred from the joint history of auditing standards and liability exposure, but there seems to be no systematic study of liability consequences over time.

Forms of Practice: Protecting Partners' Personal Assets

In the partnership typical of firms in public practice for generations, the personal wealth of all partners was available to satisfy judgments the firm could not satisfy. The risk was not considered unacceptable until fairly recently. Increases in claims against accountants, suddenly in the high millions, and the threat such claims represented were underscored by the fate of Laventhol & Horwath, making protection of partners' personal assets a high priority. As a result, the pros and cons of three options were analyzed: the general corporation, the limited liability company (LLC), and the limited liability partnership (LLP). Each would protect the personal assets of partners who did not participate in an alleged audit failure that resulted in claims beyond insurance and available firm capital. However, the law on such protection was most settled for the general corporation. Beyond that, the three forms of practice differed in degree of difficulty in obtaining the right to practice in the particular form and in several other characteristics.

For example, a general corporation would have to register with the SEC and comply with periodic reporting obligations. The same requirements might fall on an LLC, but would not fall on an LLP. Mandatory retirement ages for partners would not be permitted in a general corporation, would be threatened in an LLC, but would be permitted in an LLP. A general corporation would lose the tax advantages of a partnership. Although all three would protect partners' personal wealth from litigation over audit failures in states that permitted the form of practice, the LLP would not protect that wealth from claims by commercial creditors.

Most states did not explicitly permit any of the three forms of practice, and neither did the AICPA. Until all states had laws allowing such forms, the benefits of LLP or LLC practice would depend on whether boards of accountancy in states that did not have laws with specific permissions would recognize the out-of-state entity's right to practice in that form and on the transfer of the liability protections. State board action looked very important as late as, say, October 1993, when only four states had legislated LLPs. However, since it was a partnership, the outlook for licensing LLPs in states that did not otherwise allow them by law was promising.

In May 1994, the AICPA's rules were changed to allow practice in any form permitted by state law within several constraints designed to assure that CPAs control the entity and its attest and compilation practices.[32] By the summer state boards in almost all states had recognized LLPs, and firms were registering in that form of practice. Fewer than half the states had written LLP permissions into law.

Ideally, all states would recognize both LLPs and LLCs in laws with desirable provisions. The current status of statutory permissions (estimated as of January 25, 1996) is given below:[33]

State permits CPA LLP	40
State permits CPA LLC	43

The table oversimplifies in that the permissions are not identical. In some states LLPs are recognized in law but amendments are much desired (e.g., eliminating restrictions on partner distributions, making the law applicable to foreign LLPs, clarifying the liability shield).

10b-5Reform

The dam holding back possible reform broke when the Republicans won the 1994 midterm elections and tort reform was included in the Contract with America. Before that, John Dingell (D-Mich) was opposed to reform and extraordinarily powerful in his position as chairman of the House Committee on Energy and Commerce.

In June 1991, a Supreme Court ruling shortened the statute of limitations for securities class actions under Section 10b of the 1934 Securities Exchange Act.[34] This ruling, known by the abbreviated case name *Lampf*, led to counter measures in Congress. Senator Richard Bryan (D-NV) and Representative Edward Markey (D-MA) introduced bills to overthrow *Lampf*.

The successful battle to defend *Lampf* led to a coalition, called the Coalition to Eliminate Abusive Securities Suits (CEASS). Its purpose was to support imminent tort-reform legislation by Senator Pete Domenici (R-NM) and to fight for a variety of specified reforms.[35]

The original 25 members included accounting organizations, several business and securities-industry organizations and several corporations.[36] In less than a year, membership topped 300. Companies in highly technical industries became backbone allies because the volatility of their stock prices made them frequent targets of strike suits. The argument that tort reform was important for the health of the economy was particularly strong when growth industries widely appreciated for their role in job creation made clear that they were spending heavily to defend against strike suits.

This contributed, after override of President Clinton's veto, to passage of the Private Securities Litigation Reform Act of 1995. Most of its measures can be put in four rubrics:

- Measures to curb frivolous suits[37]
- A tempered form of joint and several liability that limits the liability of accountants[38]
- Whistle blowing responsibilities for auditors
- Safe harbor provisions for forward-looking disclosures accompanied by cautionary language

The law also gives the SEC, but not private investors, the right to sue for "aiding and abetting." Auditors had for some time been routinely charged with violations of the federal securities laws by "aiding and abetting" another person or entity. But in 1994 the Supreme Court ruled that the securities laws' anti-fraud provisions do not include a private right to sue for aiding and abetting a violation of section 10b of the Exchange Act.[39]

The safe harbor for forward-looking disclosures may open a new chapter in a story that began when the profession developed standards for presenting and attesting to forecasts and projections about a decade ago. The expectation at the time was that disclosing companies, users of the disclosures, and CPAs providing related services would all benefit. However, lawsuits cut severely into the profitability of the service and the willingness of companies to volunteer the disclosures.

The new law predicates the safe harbor on "meaningful cautionary statements identifying important factors that could cause actual results to differ materially." The approach derives from the "bespeaks caution" doctrine that developed mostly in litigation about forecasts and projections.[40] If the cautionary language is adequate, the assertions are not actionable.

The new law removes the threat of the Racketeer Influenced Corrupt Practices Act (RICO). This federal law was adopted in 1970 to combat organized crime. Violations could lead to awards of treble damages and attorney's fees. In 1985 the Supreme Court ruled that the qualifying characteristic of a violation was a pattern of conduct that amounts to or threatens continued criminal activity, which could include audits. Prior criminal conviction was unnecessary. Eight years later the same court virtually exempted auditors by requiring that the conduct involve operating or managing the entity. The Private Securities Litigation Reform Act is more definitive in removing the RICO threat from federal securities law. Most states have adopted their own versions of RICO,[41] but they have not been a notable problem.

Effect on the Profession's Future Efforts

No one knows the degree to which Private Securities Litigation Reform Act will alleviate the burdens of accountants' liability. The strike-suit bar has not worked with the new law long enough to be certain that their approach to litigation cannot be reinstated or approximated by new devices, and additional use of state courts could make up some ground lost to them in federal courts. More importantly, only some 30% of the liability exposure has been federal in recent years, the remainder being in state courts.

Whether or not additional reform of federal securities liability is shown desirable, it is not a likely avenue for additional relief. The legislative focus turns now to the states. Defending recent gains from the plaintiff bar's activism is likely to become a standing effort by the profession and its allies. California is the prime example.

William Lerach, a prominent strike-suit lawyer, led an unsuccessful effort to get an initiative adopted in the 1996 election that would have made the state of California more friendly to cases alleging securities fraud than were federal courts before the Private Securities Litigation Reform Act passed in December 1995.[42] If the initiative had been adopted, there would have been full joint and several liability, an expanded fraud on the market doctrine, punitive damages, a prohibition against restrictions on class-action attorneys' contingency fees, and explicit recognition that "recklessness" is a basis for liability and that aiding and abetting is actionable. California would have become the forum of choice for securities litigation by the strike-suit bar, and cases would have included companies not based in California.

Nonaudit CPA Services

Although audits lead to the largest malpractice claims, nonaudit CPA services are both a significant source of litigation risk and a potential source of lessons in formulating assurance services. Tax practice generates more numerous malpractice losses for small accounting firms than audit or consulting services.[43]

There are two categories of nonaudit CPA services, other attest work and nonattest work. Other attest work includes reports on forecasts and projections, reviews, and what are called special reports (e.g., reports on agreed-upon procedures for attest purposes). Nonattest work includes compilation, tax, and consulting services.

Except for the securities laws, nonaudit CPA services are governed by legal requirements similar to those that apply to audits. The nature of nonattest services, however, orients the types of suits differently. Two-party relationships are the norm, rather than the three-party relationships that characterize attest work.[44] Obligations toward clients and alleged breaches of contract therefore dominate. In attest work, the different interests of the party responsible for the information and the party that uses it raise questions of potential fraud damaging the user party.

Accountants performing nonattest services can be sued by clients for breach of contract or for injury under tort law. In either case, the plaintiff must prove that an applicable standard of care has been violated and that the violation caused the plaintiff injury.

The standard of care applied in tax litigation has varied based on the circumstances. It can be determined by an engagement contract or be measured by the care and skills of other tax service providers in the local community, by the care and skills of specialists performing similar services, or by the fiduciary standard requiring an advisor to be candid and act in good faith.[45] Accountants performing advisory roles frequently assume fiduciary responsibilities.

Litigation on compilations has lessons for assurance services. In a well known write-up case first adjudicated in 1967, the absence of an engagement letter was fundamental to finding an accountant negligent for not uncovering an embezzlement.[46] In addition, the court rejected the defense that the accountant had disclaimed performing an audit. A disclaimer found inconsistent with the assurances given by an accountant cannot provide consistent protection. Moreover, the court applied a "suspicious inquiry" standard that obligated the accountant to pursue suspicious circumstances — in this case, missing invoices — by additional investigative procedures. Though professional standards (SAP 38) said that audit procedures were not obligatory in what was an accounting, rather than an auditing, service, the AICPA's remedy was to make more full and explicit standards for compilations (SSARS 1).

In a variety of nonaudit circumstances related to those in the case above, CPAs can be held liable for failing to discover immaterial fraud. The accountant is responsible for finding defalcations that would be discovered by applying the usual standard of care called for by the engagement in question.[47]

This obligation applies in engagements to report on internal control. For this reason, one set of authors recommends that firms undertaking such engagements ask client management whether it suspects that defalcations might be occurring. Such suspicions could have prompted the engagement.[48]

Engagement letters can be important in controlling consulting litigation, especially when systems work is performed. The practitioner and the client may differ on the promised capabilities of the system, and a contract could help reconcile the differences. It could also reduce their incidence.

Relationship to Assurance Services

The summary statements above can indicate only some portion of the great tangled heap of law, politics, and economics that affect accountants' liability. Suppose, though, that the statements were detailed and complete and omitted whatever errors they now have. The full story would have embedded lessons about approaches to limiting litigation risk. We would have available something near the full set of risks facing assurance services and the range of attempted ameliorating actions. We could abstract from the record approaches that have worked in the past. And we could make inferences about controlling litigation risk for assurance services as yet unformulated. That would be some benefit from CPAs' regrettably abundant experience with litigation.

Notes

1. Strike suits refer to actions brought when a corporation's stock drops sufficiently to make a class action suit potentially profitable for the plaintiff's attorneys, even though the drop is caused by economic conditions, such as the volatility of an industry, rather than genuinely suspected fraud. Technology stocks have been particularly vulnerable to these suits.

2. Denzil Y. Causey, Jr. and Sandra A. Causey, *Duties and Liabilities of Public Accountants* (Accountants Press: Mississippi State, 1995), ch. 5.

3. R. James Gormley, "Auditing and the Law," chapter 46 in John C. Burton, Russell E. Palmer, and Robert S. Kay, *Handbook of Accounting and Auditing* (Boston: Warren, Gorham & Lamont, 1981), ch. 46, pp. 20-21.

4. Causey and Causey, p. 166.

5. The full title of the case is *Ultramares Corp. v. Touche Niven & Company*. The exception was when the accountant knew and understood that the financial statements were intended for use by a particular plaintiff for a particular purpose. Kenneth J. Bialkin and Deborah E. Cooper, "Expanding Accountants' Liability: New Trends and Implications," *Corporate Accounting*, Winter 1986, p. 13.

6. Gormley, pp. 22-23.

7. *Rusch Factors, Inc. v. Levin*. In this case a federal district court was applying the law of Rhode Island and New York. See Causey and Causey, p. 176.

8. *H. Rosenblum, Inc. v. Adler*. The case was termed "perhaps the most influential critique [of *Ultramares*]" by Kenneth J. Bialkin and Deborah E. Cooper in their article "Expanding Accountants' Liability: New Trends and Implications," *Corporate Accounting*, Winter 1986, p. 13.

9. M. Laurence Popofsky, "CPAs Win Big in Osborne Case," *Accounting Today*, February 1, 1993, pp. 16-17.

10. Source: The Accountants Coalition.

11. Based on Causey and Causey, ch. 9, and Gormley, pp. 26-38.

12. Thomas Earl Patton and Terry Rose Saunders, *Securities Fraud: Litigating Under Rule 10b-5* (Butterworth Legal Publishers: Salem, New Hampshire, a binder last updated by "Issue 3" in 1992), pp. 1:5-6.

13. Patton and Saunders., Chapter 4, "Development of Implied Right of Action," pp. 4:1-8. Patton and Saunders point out: "In more recent cases the Supreme Court and the circuits have essentially reversed the burden and required the plaintiff to show affirmatively an intention to confer an implied right." (p. 4:2).

14. Patton and Saunders, pp. 1:22.

15. Gormley, p. 33. He notes in particular the Supreme Court decision in *Affiliated Ute Citizens of Utah v. United States* (1972) that held positive proof was not required in a case involving primarily a material omission (i.e., rather than a misrepresentation).

16. The paragraph is based on Gormley, pp. 34-36. The full case name is *Ernst & Ernst v. Hochfelder*.

17. Arthur Andersen & Co., Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG Peat Marwick, Price Waterhouse, *The Liability Crisis in the United States: Impact on the Accounting Profession*, August 6, 1992, p. 3.

18. Ibid.

19. Robert Mednick, "Accountants' Liability: Coping with the Stampede to the Courtroom," *Journal of Accountancy*, September 1987, p. 119.

20. The modified form of joint and several liability enacted into federal law in December is described in footnote 38 below. Twelve states now apply pure joint and several liability; nine have pure proportionate liability; and the others have variations that lie at different points between the two extremes. For example, New Jersey applies joint and several liability for economic damages to those found responsible for over 20% of the fault. Source: The Accountants Coalition.

21. Arthur Andersen & Co., Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG Peat Marwick, Price Waterhouse, *The Liability Crisis in the United States: Impact on the Accounting Profession*, August 6, 1992, p. 2.

22. Patton and Saunders, p. 1:9. The key event was the amendment of Rule 23 of the Federal Rules of Civil Procedure in 1966.

23. William R. Kinney, Jr. and Roger D. Martin, "Does Auditing Reduce Bias in Financial Reporting? A Review of Audit-Related Adjustment Studies," *Auditing: A Journal of Practice and Theory*, Spring 1994, pp. 149-156.

24. Victor M. Earle, III, "The Fairness Myth," *Vanderbilt Law Review*, January 1975, p. 148.

25. Causey and Causey, p. 17.

26. For example, The Commission on Auditors' Responsibilities, *Report, Conclusions, and Recommendations* (New York: The Commission on Auditors' Responsibilities, 1978), p. 153.

27. Arthur Andersen et al, *The Liability Crisis*, p. 7.

28. Advisory Panel on Auditor Independence, *Strengthening the Professionalism of the Independent Auditor* (Public Oversight Board, 1994). The panel wrote, "The risks associated with the auditing function...and competitive pressures have also caused the large accounting firms to encourage detailed accounting and auditing standards and clear guidance or consensus on how to apply them, thereby narrowing the scope of professional judgment that might be questioned by a litigant alleging a loss due to a negligent audit," p. 5.

29. Henry R. Jaenicke's *The Effect of Litigation on Independent Auditors* (New York, 1977), originally a background paper for the Cohen Commission (Commission on Auditors' Responsibilities), lists nine auditing pronouncements that can be traced to litigation, p. 79.

30. Public statements and the ideological framework indicated a deliberate attempt to expand responsibilities. For example, the preface to a pamphlet on implementing the standards, written by the AICPA Vice President, Auditing, and the Director of Auditing Research, says: "These standards address what has become known as the 'expectation gap' — the difference between what the public and financial statement users believe auditors are responsible for and what auditors themselves believe their responsibilities are." *Implementing the Expectation Gap Auditing Standards* (New York: American Institute of Certified Public Accountants, 1989, p. v.

31. American Institute of Certified Public Accountants, The Auditor's Consideration of the Entity's Ability to Continue as a Going Concern, Statement on Auditing Standards No. 59 (New York: AICPA, 1988).

32. AICPA ET§505.01 and ET Appendix B.

33. Source: The Accountants Coalition.

34. *Lampf, Pleva, Lipkind, Prupis & Petigrow v. Gilbertson.* The court ruled that the statute of limitations for express causes of action under the 1934 Act should also be applicable to implied causes of action (i.e., 10b actions for securities fraud), rather than looking to the widely varying provisions of state laws.

35. The specified reforms were proportionate liability, fee-shifting, abolition of abusive practices (bounties to shareholders who agree to sue, payments to stockbrokers for referring plaintiffs), a clear and convincing proof standard, pleading with specificity, and aiding and abetting reform.

36. For example, the National Association of Manufacturers, American Business Conference, National Venture Capital Association, Securities Industry Association, Public Securities Association, National Association of Corporate Directors, Sears, Amdahl, Intel, Union Carbide, and Control Data.

37. These include a requirement for pleading with particularity, a requirement to prove loss was caused by the misstatement or omission, restrictions against "professional plaintiffs," a requirement that the court to consider compliance with Rule 11 (against frivolous suits) of the Federal Rules of Civil Procedure and to award attorneys fees and costs for substantial violations, increasing investor control of class action suits, limitations on attorneys' fees, and improved information about settlements for class members.

38. Auditors who commit knowing violations of the securities laws would remain jointly and severally liable. Conduct without such knowledge ("non-knowing violations") would incur joint and several liability to small investors (those with less than $200,000 in net worth and a loss of 10% of net worth). Beyond that, when a defendant cannot pay (e.g., a bankrupt perpetrator), other defendants (e.g., auditors) would be liable for the shortfall up to 50% of their own proportionate liability.

39. *Central Bank of Denver v. First Interstate Bank of Denver.*

40. Donald C. Langevoort, "Disclosures that 'Bespeak Caution,'" *The Business Lawyer*, pp. 481-503.

41. The background information in this paragraph is from Causey and Causey, pp. 275-276. The 1993 case that virtually exempted auditors was *Reves v. Ernst & Young*. The 1985 case that put auditors at risk was *Sedima S.P.R. L. v. Imrex Co.*

42. Margaret A. Jacobs, "Business Groups, Lawyers Face Off Over California Litigation Reform," *The Wall Street Journal*, January 15, 1996; Tim W. Ferguson, "Tort retort," *Forbes*, February 12, 1996, p. 47. The business groups have already put initiatives up for decision by voters in the March presidential primary that include a loser pays rule (with

the attorneys named as potential payers along with the losing parties) and a 15% cap on contingency fees for cases settled within 60 days of a court filing or request for settlement.

43. Causey and Causey, pp. 324, 345.

44. Compilations often involve third party reliance, and litigation risk can rise because of it, particularly in the case of compiled financial statements used in the purchase of a business.

45. Causey and Causey, pp. 324-327.

46. The case is *1136 Tenants' Corp. V. Max Rothenberg & Co*, 1967. See John S. Dzienkowski, "Accountants' Liability for Compilation and Review Engagements," *Texas Law Review*, April 1982, pp. 781-788.

47. Causey and Causey, p. 144.

48. George Spellmire, Wayne Baliga, and Debra Winiarski, *Accountants' Legal Liability Guide* (New York: Harcourt Brace Jovanovich, 1990), pp. 4.48-4.49.

Assurance Service Liability

This report consists of 10 sections:

Introduction

The Committee's objective on liability was to consider ways in which the assurance function can be structured to minimize litigation risks and what risk-mitigation posture is best for a robust assurance function, a criterion that incorporates the public interest as well as assurers' pocketbooks. The Committee has therefore considered various strategies and their consequences. This report sets out its conclusions and recommendations.

Ideally, the scope of report would cover all the areas in the matrix below:

	Audit	Other attest	Other assurance
Present services	√	√	√
Future services	√	√	√

However, the full set of assurance services is not now known. Most will be developed in the future. For this reason, the Committee could not pursue risk mitigation at the level of individual services. Its findings are generic to assurance services as a group — audits, other attest services, and other assurance services. For the same reason, a model has been included on risk mitigation when developing new assurance services.

The Committee's conclusions are summarized as follows:

- Firm-level risk management can be significantly improved by enhancing the yield from existing risk-avoidance techniques.
- Cautionary language in (1) information that is the subject of assurance services and in (2) assurers' work products may help protect assurers from unwarranted liability. Cautionary language should therefore be considered in developing services, bearing in mind that at some levels and in some guises cautionary language runs the risk of reducing the perceived value of the services.
- There are advantages from bringing assurance-service liability more within contract, as opposed to tort, law than it is now.
- Loss-limiting clauses in assurance-service contracts are advantageous. Assurers should therefore consider their availability and potential benefits when arriving at engagement terms.
- Alternative dispute resolution (ADR), primarily a contractual avenue, can be advantageous. Assurers should therefore evaluate its suitability to their engagement circumstances.
- When determining the portfolio of services to be offered, assurers may wish to factor in the litigation risks of specific performance obligations.
- Information that is the subject of an assurance engagement and is disseminated through a public computer network, such as the Internet, does not appear more of a litigation threat under current law than information disseminated by other means, although the relevant legal reasoning has yet to be applied to accountants. However, the

hospitability of public networks to assurance services is subject to change and should be closely monitored.

The final conclusion is that a risk mitigation model can be helpful when developing and implementing new assurance services. The model incorporates the conclusions in this section. It sets out how they can be integrated into a single approach to mitigating litigation risk.

Firm-Level Risk Management

The Committee has concluded that firm-level risk management can be significantly improved by enhancing the yield from existing risk-avoidance techniques, such as contractual protections and effective procedures on acceptance and continuance of clients. The conclusion derived from the experiences of Committee members and from the Committee's study of approaches to mitigating litigation risk. However, the application of the conclusion to contractual protections was tested. Professor Zoe-Vonna Palmrose of the University of Southern California examined a sample of litigated cases from her auditor litigation database and found that at least one in five were amenable to reduced litigation risk by indemnifications in engagement letters. Because of the structure of the database, the estimate is conservative. Firms should be assiduous in applying existing risk management techniques in order to maximize the protections they offer.

Procedures for acceptance and continuance of clients have been widely applied in recent years. These procedures are an audit quality control requirement as well as a basic firm-level technique to manage litigation risk. Effective guidance on such procedures is available (the Practice Alert issued by the AICPA's SEC Practice Section in September 1994).

It would be impracticable to make the Practice Alert or other effective guidance mandatory for all firms because business risk (the risk of litigation) does not come within the ordinary compass of the Auditing Standards Board, and it is not embraced by the definition of audit quality controls. (A system of quality control is the organization, policies, and procedures to provide "reasonable assurance of complying with professional standards" (QC§10.04).) Moreover, it would be inappropriate for the AICPA to take responsibility for requirements on acceptance and continuance of clients for purposes of litigation risk management. It is therefore up to firms to adopt an effective set of procedures, communicate them to engagement personnel, and make sure they are understood and complied with.

Besides acceptance and continuance of clients, other audit quality controls function to reduce litigation risk. The better the quality of the audit, the more defensible it will be. Similarly, the better the quality of any assurance service, the lower the attendant litigation risk.

Several of the remaining conclusions suggest ways to enhance the yield from existing risk management techniques.

Cautionary Language

Language can warn a reader about the limits of information sufficiently that it may prevent that information from misleading a reader and thereby causing injury. In this way cautionary language may mitigate litigation risk when used in information that is the subject of an assurance engagement and when used in assurance reports.

Courts have accepted the exculpatory weight of cautionary language in forward-looking statements about financial performance. The notion is called the "bespeaks caution" doctrine. A safe harbor for forward-looking disclosures based on the "bespeaks caution" doctrine was included in the reform of federal 10b-5 securities litigation adopted in December 1995.

The doctrine arises from traditional legal principles established in litigation involving the federal securities laws. In all such cases a threshold question has been whether the alleged misrepresentation — taken in its context — would have misled a reasonable investor. The language accompanying a misstatement may render it immaterial or make reliance on the misstatement unreasonable. These two criteria — materiality and reasonableness of reliance — generally apply to information that is the subject of an assurance engagement, a powerful incentive to look to cautionary language in developing and structuring new assurance services.

Ironically, however, the exclusion of historical financial statements from the bespeaks-caution safe harbor in the December 1995 reform of federal 10b-5 securities litigation could complicate the subsequent application of the criteria. This is because the traditional criteria would still be applicable, but their particular configuration in the "bespeaks caution" safe harbor would not, at least under federal law. It is arguable that nominally historical assertions in financial statements are really forward-looking (e.g., receivables are an expectation of future cash collections) and therefore covered by the common law doctrine of "bespeaks caution." The courts will settle these issues in the years ahead.

There are limits to the effectiveness and desirability of cautionary language. It cannot protect against a statement that has no objective basis, for example. Moreover, depending on its prominence and substance, cautionary language can diminish the perceived value of an assurer's work. An extensive, boldface, underscored preface detailing what an audit opinion does not cover is likely to reduce the value of the audit report in the eyes of the client and the user. In these situations, the reader can get the impression that the assurer is effectively transferring to the reader a portion of the risk he or she might otherwise be taking on. It is of course true that cautionary language can be constructive and helpful to the user — for example, disclosures of the limits of estimates. Nevertheless, the marketability of any service depends on customers' perceptions, which can be negatively affected by conditions that appear to narrow or clutter what is being delivered. Therefore, the effect of cautionary language on the marketability of assurance work is a factor to be weighed in devising cautionary language.

Moving from Tort to Contract Liability

Tort claims have been particularly damaging to CPA firms. (There is no single, satisfactory definition of a tort. A respected scholarly definition is "a civil wrong, other than breach of contract [remediable by court action for damages].") Tort claims allow a broader group to sue than contracts and have generally led to the largest court awards and settlements. Contracts, through negotiation, allow specific control of the conditions governing expected performance and liability. Relying more on contractual arrangements to govern engagement liability can therefore be a helpful litigation control strategy. Nevertheless, tort law can provide advantages in certain circumstances, and practitioners frequently can be sued under both contract and tort law. Practitioners should therefore understand the pros and cons of greater use of contract than tort law in assurance engagements and how to obtain the advantages that may be available from contractual arrangements.

The advantages of the two forms are outlined in the table below. Items in square brackets are sometimes inserted opposite advantages in order to help indicate their extent. The analysis is based on audit liability, but the term assurer is used for illustration where it appears to fit.

Contract	Tort
Assurer can negotiate a limit on those who are to receive the assurance work product and are therefore presumed to be reliant parties	[Known, foreseen, or foreseeably affected parties may sue, depending on the jurisdiction and the claim]
Assurer can negotiate damage terms, which could range from corrective performance to financial loss	
Contract can make explicit the role of the assurer and his/her work product	[Risk that professional role will be misunderstood and claim for injury from work product be easier to establish]
[Plaintiff must prove breach of contract]	Plaintiff in some tort claims must prove a state of mind (e.g., *scienter* or guilty knowledge, such as intent)
	Statutes of limitations tend to be shorter, although the statute of limitations for some

	torts is measured from the time the alleged tort was discovered
Can avoid litigation costs by specified indemnities and alternative dispute resolution (ADR) arrangements	

Contractual protection has two limitations: (1) As a general matter, it cannot protect an assurer from liability for intentional or reckless misconduct, because such exemptions are generally unenforceable on grounds of public policy. (2) The contract generally binds only those who agree to it, so it cannot protect against most third-party claims (e.g., the claims of shareholders).

Although there are limits to the substitution of contract for tort for audit work in current audit conditions, the advantages in the table above are still highly relevant for three reasons. First, engagement letters are contracts and can be more or less effective. Second, the context of concern is not only audit work but the whole range of assurance work, now and in the future. Third, contract liability for audit work may be easier to arrange as the era of information technology matures.

When modern corporate ownership became diffused, with broad populations of shareholders, the CPA had no direct business relationship with third-party users of audit reports. But two trends could overcome this obstacle and allow the establishment of contractual relationships to shareholders and potential purchasers of securities.

- Two-party audit (or attest) relationships are more likely in the future. As discussed by the Committee, analysts and institutional investors are becoming more powerful, and the aging of the population will enlarge the clout of pension and mutual funds. To fulfill their responsibilities, leaders in these groups could employ CPAs directly for audit or other assurance work under contract.

- Even more future-oriented is the trend toward investor access to the databases of investees and potential investees. In the electronic environment so created, the assurer can have direct business contacts with large numbers of individual third-party users. The user could have a choice of whether or not to receive an assurance report; the contractual conditions for receiving it could be spelled out; and the identity of the user assenting to the contract could be recorded.

Engagement letters are not required by GAAS, and the Auditing Standards Board is unlikely to create such a requirement. Instead, the Auditing Standards Board, now considering auditors' communications, is likely to treat a written communication establishing an understanding with the client as preferable practice. Requirements would thus have to be set at the firm level.

Appendix A contains examples of clauses that might be used in engagement letter to mitigate litigation risk.

Loss-Limiting Clauses

These are contractual clauses that (1) agree to indemnify the client a specified amount (e.g., fees paid) for losses caused by the services delivered or (2) agree that the client will indemnify the accountant for claims by third parties (gross negligence or willful misconduct by the accountant are typically identified exceptions).

The advantages of these types of clauses are obvious: Both limit potential damages, the first from claims by the client and the second from claims by third parties. However, their availability in audit engagements has been restricted. Current AICPA ethics rulings permit loss limiting clauses when the loss arises from knowing misrepresentations by management, holding that such clauses do not impair the practitioner's independence (ET§191.188-.189). (The SEC has held that the relief from liability created by loss-limiting clauses in which the client agrees to make the auditor whole for third-party claims impairs audit independence. Because the rationale for the SEC's position is partly that the threat of liability is an incentive to diligent work, it also objects to restricting responsibility for the client's loss to the fee.) The ethics code does not deal with engagement-letter indemnities under other conditions, but an item in the AICPA Ethics Committee's meeting minutes in 1994 allows that indemnities without regard to fault do not impair independence.

Because loss-limiting clauses provide obvious advantages, assurers should consider their availability when arriving at engagement terms. They are generally available in private-company engagements.

Examples of loss-limiting clauses are given in Appendix A.

Alternative Dispute Resolution (ADR)

ADR refers to a range of procedures that include arbitration (where a third party decides) and mediation (where a third party assists the disputants to reach a voluntary settlement). Evaluators are typically chosen by the parties, and the rules are generally either set by the parties or approved by them.

Assurers should consider the suitability of ADR to their engagement circumstances. ADR can be agreed to after a dispute arises, but it can also be mandatory as a consequence of a clause in the engagement letter. (Appendix A contains an example of such a provision.)

ADR's primary advantages are that it avoids the uncertainties, delays, acrimony, publicity, and expense of the courts. It avoids the uncertainty caused by courts empowering inexpert juries and judges to determine liability.

ADR has some potential disadvantages, and these must be considered when evaluating the suitability of ADR for certain engagements. Because ADR is usually relatively low in cost, there may be occasional instances when its availability would prompt claims by clients who would not otherwise press them. Moreover, if multiple claims are involved, some of which are subject to ADR and some not, the risk of duplicative proceedings may be present. Additionally, there may be situations where legal defenses available to the practitioner may have less impact with arbitrators than they would with judges. Finally, ADR parties can be disadvantaged in litigation following nonbinding mediation by already having disclosed their defense strategies.

Some may suspect that automatic splitting of the difference is a disadvantage of ADR, but available data do not support this. Research by the American Arbitration Association has shown that 31 percent of about 4,600 cases arbitrated in 1990 were resolved with awards of 100 percent or zero, and only 10 percent of the cases resulted in awards between 40-59 percent.

ADR's availability can be limited by professional liability insurance. Malpractice policies often deny coverage in the event that a claim is compromised by the insured, and binding arbitration, or other forms of ADR, may constitute such a compromise.

With the assistance of its National Accounting Dispute Resolution Committee the American Arbitration Association has published rules designed for settling accountancy service disputes. The rules can be applied in mediations as well as arbitrations.

Entities disposed to seek alternatives to litigation can sign a statement of policy developed by CPR Institute for Dispute Resolution. Signatories join a pool of over 4,000 like-minded entities, but do not commit themselves to ADR in all or in any particular circumstances. The policy statement explicitly acknowledges both parties' right to sue. Moreover, exploring ADR techniques as a signatory does not allow inferences about the strength of the potential case that might be made in court. The policy statement has been supported by the Business Roundtable, the National Association of Manufacturers, and the American Corporate Counsel Association, and several accounting firms are among those who have signed. The statement and the list of signatories are given in Appendix B.

Portfolio Management

One way to think about risk is to consider it for each individual engagement as if it were the only one a firm had. Another way is to consider the risk of the firm's entire portfolio of engagements.

Analogously, investors generally evaluate their success at the portfolio level — expecting to lose money on a few investments, to make out very well on others, and to do satisfactorily on the portfolio as a whole. To compensate for risks, they generally demand higher returns from riskier investments.

Individual assurance engagements add different increments of risk to the portfolio a firm maintains as an ongoing business. Viewing the engagement risk portfolio in its entirety and charging higher fees for riskier engagements enables a firm to sustain losses on a few engagements while still making profits on the entire portfolio. It also allows firms to make policy-level decisions on lines of business to be in as well as individual engagement acceptance and pricing.

Computer-Disseminated Information

Under current law the litigation risk from financial information disseminated over a public computer medium, such as the Internet, does not appear greater than for information otherwise distributed, although the relevant legal reasoning has yet to be applied to accountants. This also applies to nonfinancial information that is the subject of an assurance engagement and to assurers' reports.

This conclusion derives from a New York doctrine established in 1921 (*Jaillet v. Cashman)*. Dow Jones misreported information over the ticker service, was sued by an investor who lost money acting on the flawed information, but was exonerated. The reach of the ticker service that carried the erroneous information was the basis for the court's dismissal of the complaint. The court rejected negligence because it could make the party disseminating the information liable to every member of the community misled by the information. The indeterminate breadth of such a liability was sufficiently impracticable to be denied by the court. More recently, the same reasoning has been applied to computer-disseminated information (*Daniel v. Dow Jones & Co., Inc.*, New York, 1987), and it has a foundation in tort law concepts.

Transmission over public media can also bring the free-speech protections of the first amendment to bear. Although the potential applicability of these protections is uncertain, they would likely weigh on the side of controlling liability.

Despite some apparent security offered by current law, the future is not assured. The public-media reasoning has not yet been applied to accountants. Although *Jaillet* may protect against negligence claims in many jurisdictions, it may not be applied universally and does not protect against claims of recklessness that is tantamount to fraud. Case law and new statutes could make computer networks less hospitable to assurance services. In addition, the Internet is not just a public medium, but also an international medium. Accountants could be found liable for having broken other countries' laws, and their behavior could become subject to international agreements.

However, procedures in most foreign courts are less weighted toward the plaintiff than those in U.S. courts. Class action suits, contingent fees, and jury trials are rare; punitive damages are almost never available in accountant liability cases; and the U.S. is not party to any treaty that would determine the substantive elements of a claim against an accounting firm for a failure to adhere to professional standards. On the other hand, fee-shifting (a deterrent to frivolous and thinly based suits) is available in some foreign countries. For these reasons, litigants making claims against an accounting firm for information disseminated over an international network who have the choice may decide to press those claims in U.S. rather than in foreign courts.

Nevertheless, just as with the characteristics of the litigation environment in the U.S., foreign courts and laws are subject to change. Despite the finding that properly controlled litigation risk may not be extraordinarily high under domestic and foreign current law, the legal environment should be monitored closely.

Contractual language is advisable for assurance engagements entailing computer-disseminated information and assurers' reports. Two opportunities open to assurers for contractual arrangements in these circumstances are (1) on-line sign-up procedures before a transmission and (2) subscription agreements (if one is to be entered with the party disseminating the information). (If the subscription agreement is with an internet service provider (e.g., CompuServe), the information disseminator may be a different party — one disseminating information over the internet.)

The range of potential contractual protections can be illustrated by imagining a written agreement and sign-up procedures. Both contractual instruments might include provisions such as the following.

- Disclaim any warranty of any kind,
- Limit or preclude liability for negligence,
- Limit liability for breach of contract (e.g., to the amount the user has paid over some period of time),
- Limit for all purposes the amount of recoverable damages and preclude recovery of consequential and punitive damages,
- State the limitations of any assurer's report and the limitations on the information to be used by the user,
- Prohibit dissemination of the information for use by others absent written consent,
- Specify an abbreviated period under which suit can be brought,

- Require arbitration of all disputes in a convenient forum,

- Include a statement that the service and any assurance it provides may be discontinued at the discretion of the practitioner.

Some of the above provisions may be precluded by prevailing state law or the laws of foreign nations. Others may be precluded by the nature of the commercial relationship. Still other provisions not listed above may be considered prudent (e.g., a representation that the user has read and fully understands the terms of the written agreement).

Liability Risk Mitigation Model

The risk mitigation procedures that have been cited above are incorporated in the model illustrated in the flowchart below. The procedures in the model would be applied during the cycle of new assurance service development and implementation. To depict this, the model relies on the Committee's service development plan. In other words, the model assumes that risk mitigation will have to be integrated with the procedures the Committee recommends for service development.

The flowchart is divided vertically by the categories on the far left. These represent phases of bringing a service to market. The flowchart is also divided horizontally into activities by the AICPA (left) and those by firms (right). Although this division is not absolute, since members from firms will be responsible for the brunt of the AICPA activities, it is still generally valid.

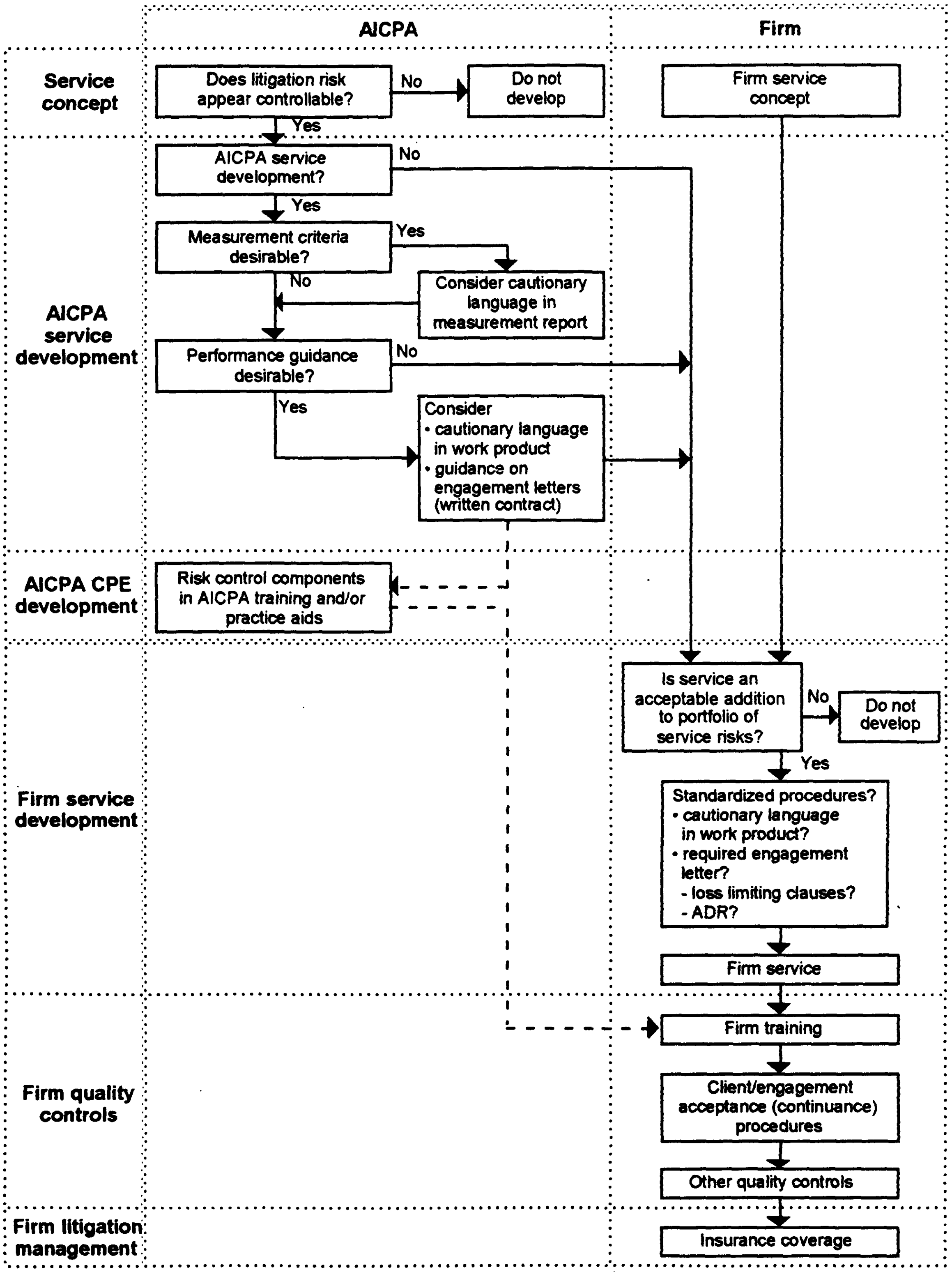
The first vertical division, or phase, is called the service concept and corresponds to the activities of the Assurance Services Committee and its task forces and to the unilateral development of service concepts by firms. The Assurance Services Committee would monitor the evolving service environment and identify new or growing needs for assurance services, and the task forces would take the ideas to the next stage of development. This could result in a business plan that goes directly to AICPA members or it could include AICPA guidance.

The flowchart assumes that the AICPA service-concept phase would include a reasonableness or common-sense test for liability exposure. That's the box at the top which says "Does litigation risk appear controllable?" Although barriers to the creativity and range of groups developing new service concepts are generally undesirable, it should be possible to eliminate a service idea because of its liability potential. (The counterpart test for firm service concepts will be discussed under firm service development.)

At this point the AICPA side of the flowchart divides into two branches, one for AICPA service development and the other leading to firm service development. The Committee's scenarios treat delivery of AICPA service concepts directly to firms as a routine occurrence, as routine as AICPA service development. Thus AICPA service development is optional, a phase that occurs only when it is advisable. However, firm service development can occur as a follow-on phase after AICPA service development, or it can occur without AICPA intervention, as is indicated by the first box on the firm side of the flowchart.

Assuming it is considered advisable to have the AICPA develop the service, two kinds of formal guidance might be considered desirable, measurement criteria and guidance on

Liability Risk Mitigation Model for New Assurance Services



assurance procedures. Both present the opportunity for risk mitigation. In the case of measurement criteria, this is summed up as cautionary language in the measurement report. In the case of assurance guidance, risk mitigation is abbreviated as cautionary language in the work product and guidance on a written contract. This process refers to the full range of possible contractual policies, including loss-limiting provisions and ADR.

When cautionary language is considered, it would be important to evaluate the effect of the potential risk mitigation on the salability and pricing of the service. This is a subtle and difficult issue, even though it's obvious when an illustration is taken to its logical extreme. To take an example cited earlier, an audit report denying virtually any responsibility imaginable except the opinion on GAAP, in underscored boldface, perhaps with color printing, is not likely to appeal to users or to preparers as much as a report without that kind of warning. In dealing with new services, trying to find the right balance will demand business sense as well as risk prevention skills. The decision problem recurs at other processes in the flowchart — whenever additional steps to reduce litigation risk are visible to the client and/or a third-party user.

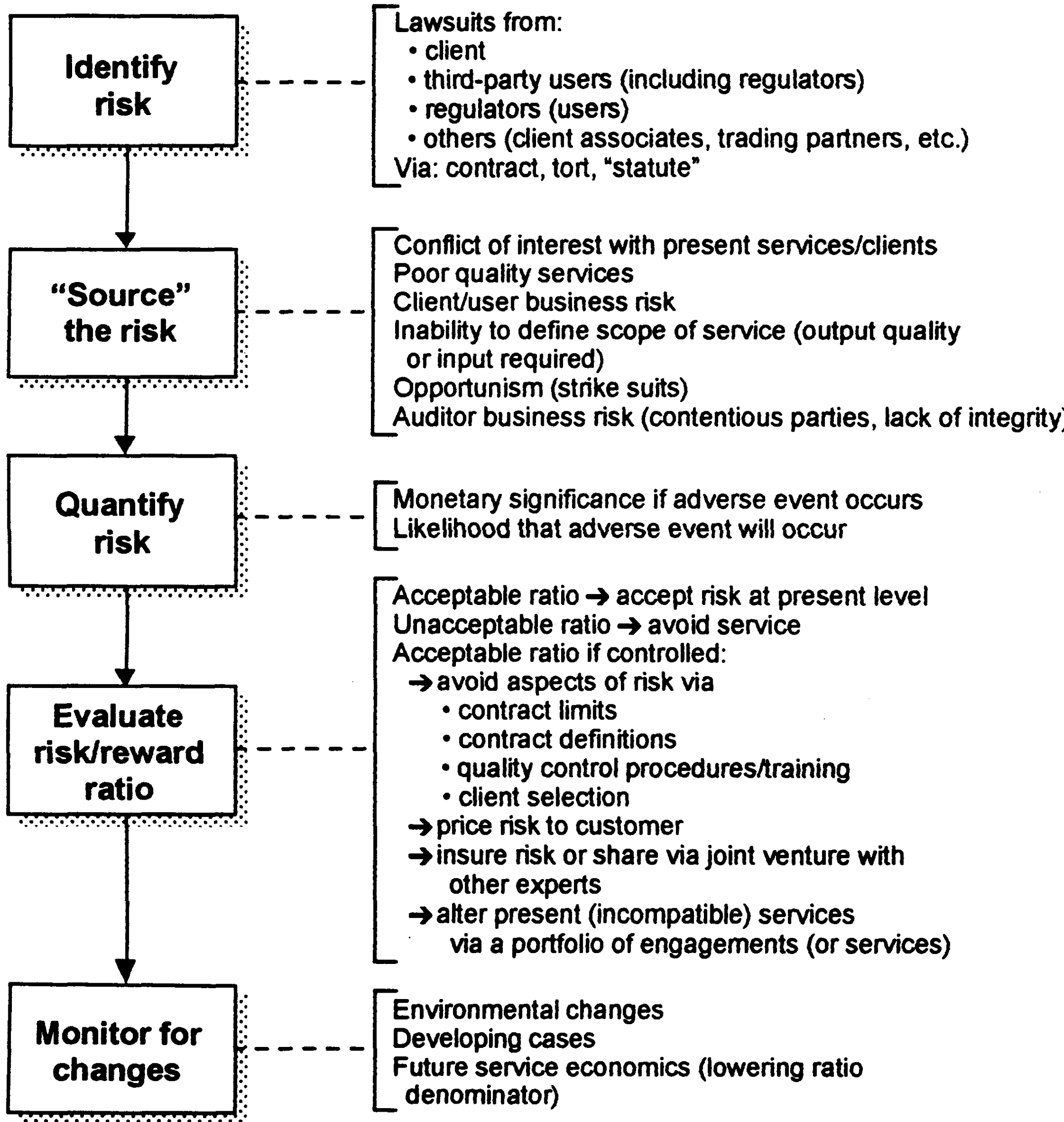
The firm service-development phase could begin on the receipt of a business plan from the AICPA service-concept groups or it could take place after AICPA guidance is created for a service concept, just the way firms develop audit processes that are refinements of GAAS. Or, finally, firm service development could begin without any connection to AICPA initiated identifications of assurance services.

The threshold question at the outset of the firm service-development phase is whether the service concept fits comfortably in the firm's portfolio of service risks. Some firms have gone out of the audit business because of litigation risks, and Committee research shows that firms have declined to provide some new services because of litigation risk. So this decision process has a solid precedent. The portfolio concept merely evaluates a service concept in the context of the firm's total risk posture, allowing that circumstances could differ from firm to firm. Just as risk and remuneration should be distributed prudently across a firm's portfolio of engagements, some risks cannot prudently be added to a portfolio.

The portfolio decision for a new service presumes that the firm has arrived at an understanding of the existing portfolio of service risks. In other words, it assumes that the firm understands its risk posture. The chart below is a template for assessing such litigation risks. It shows the process of identifying risks and their sources, quantifying the risk, and evaluating what should be considered.

Returning to the model and assuming the new risks are acceptable in terms of the portfolio, the firm would have to decide whether to define standardized procedures, say, in a manual or pamphlet. Again, the questions arise whether there should be cautionary language in the work product or a required engagement letter. And again the full range of possible contractual protections would be considered, including loss-limiting provisions and

ADR. In making these determinations, the firm would have to consider the effect on the salability of the service. The well known reluctance of some firms to insist on engagement letters with full protections, a reluctance bred by fear of discomfiting the client, is evidence that firms have over the years considered the effect of risk mitigation provisions on the salability of their services.



The next set of decision processes are quality control measures that are also litigation risk control measures. In the case of training with risk control components there is interaction with the AICPA side of the flowchart. AICPA training is not presented as a line item in AICPA service development because it is a quality control measure and because of its interaction with firm training activities. It could begin without firm service development or with little of it, or it could occur when firms develop a service (or refine an AICPA-developed service) and then obtain training assistance from the AICPA. Any time there is service-process education, the question of potential risk control guidance is relevant. The process box refers to all kinds of instruction, including practice guides and practice aids.

Client acceptance and continuance procedures are singled out because they have played so large a role in efforts to control litigation risk in recent years, but all the other quality control procedures are relevant. (The remaining audit quality controls are personnel management; engagement performance; monitoring; and independence, integrity, and objectivity.)

The final phase is firm litigation management. This includes insurance coverage for particular services and situations.

The Future Litigation Environment

The liability risk mitigation model and the conclusions in this section are based on conditions in place today. They will change, just as the conditions governing liability risk have changed before. However, it is not possible to predict whether the litigation environment five or ten years from now will be more or less risky. The forces that affect change are variable and complexly interrelated.

For example, case law, which has had so great an effect in the past, depends on legal theories and procedures, the electoral success of candidates who can gain the power to appoint judges, socio-ethical ideas and ideologies, assurers' performance and risk management techniques, engagement conditions, and still other factors that have changed in the past with significant effect and can be expected to change in the future. Since economic damage is the basis of suits, the business cycle, which influences the bankruptcy rate, plays a great role in litigation risk, and that too is a variable difficult to predict. Some measure of entrepreneurialism among attorneys can be considered a given, but the peaks and valleys of such entrepreneurialism are much harder to foresee, partly because they are affected by changing practice opportunities outside assurers' liability. Statutes affecting assurers' liability cannot be predicted reliably even when a program is in place to bring about desired legislative change, and unfavorable proposals, such as the recently defeated, highly threatening California initiative by the strike-suit bar, can also be expected.

The number of variables and their relationships suggest that the future liability environment must remain somewhat obscure to practitioners. However, the difficulty in predicting the future litigation environment delivers a clear lesson. Practitioners should monitor that environment closely and adapt to change as necessary. There is no other option.

Produced by the AICPA Special Committee on Assurance Services

Appendix A

Sample Engagement Letter Provisions

The excerpts below are very slightly modified examples of what some firms have used in the past. In some cases there is more than one example for a category — i.e., each example is in the form of a paragraph. No specific accounting firm is referred to by the name APC. (It is CPA spelled backwards.)

Release from liability

By approving this engagement, Company agrees to release APC and its personnel from any claims, liabilities, costs, and expenses relating to its services under this letter, except to the extent determined to have resulted from the intentional or deliberate misconduct of APC personnel. In the event APC is required pursuant to subpoena or other legal process to produce its documents relating to engagements for Company in judicial or administrative proceedings to which APC is not a party, Company shall reimburse APC for its professional time and expense, including reasonable attorney's fees, incurred in responding to such requests.

Liability waiver for good faith performance

We will have no liability to Company or to any third party by reason of any action taken or omitted to be taken by us in good faith relating to this engagement.

Release and indemnification against management misrepresentations

Because of the importance of management's representations to the effective performance of our services, Company will release and indemnify APC and its personnel from any claims, liabilities, costs, and expenses relating to our services under this letter attributable to any misrepresentations in the representation letter referred to above.

In addition, as required by generally accepted auditing standards, our procedures will include obtaining written representation from management concerning such matters which we will rely upon and Company will indemnify and hold APC harmless from any liability, damages, and legal or other costs APC might sustain in the event such representations are false.

Company shall release, indemnify, and hold harmless APC and its personnel from and against any and all claims, liabilities, costs, and expenses (including, without limitation, attorneys' fees and the time of APC personnel involved) brought against, paid, or incurred by APC at any time and in any way arising out of or relating to APC's services under this letter (except to the extent finally determined to have resulted from the intentional or deliberate misconduct of APC personnel), attributable to any misrepresentations contained in the letter APC is required to obtain from management about the representations embodied in the financial statements and the effectiveness of the internal control structure.

Indemnity/hold harmless

Company shall indemnify and hold harmless APC and its personnel from any claims, liabilities, costs and expenses (including, without limitation, attorneys' fees and the time of APC personnel involved) brought against, paid or incurred by APC at any time and in any way arising out of or relating to APC's services under this letter, except to the extent finally determined to have resulted from the gross negligence or willful misconduct of APC personnel.

By approving this project, you agree to indemnify us from certain risks inherent in projects of this nature. Specifically, Company agrees to indemnify and hold harmless APC and its personnel against and from any and all losses, claims, damages, or liabilities to which we may become subject in connection with APC's oral and written reports and other communication, under federal securities law or other statutes, common law, or otherwise. APC shall not be indemnified to the extent of such losses, claims, damages, or liabilities resulting from APC's bad faith or gross negligence (where Company itself was not guilty of bad faith or gross negligence) in performing our services. In the event APC is requested pursuant to subpoena or other legal process to produce its documents relating to this engagement for Company in judicial or administrative proceedings to which APC is not a party, Company shall reimburse APC at standard billing rates for its professional time and expenses, including reasonable attorney's fees, incurred in responding to such requests.

Liability loss limitation

APC takes pride in the quality of its work and will do its best to provide Company with outstanding professional service. However, in the event Company is dissatisfied with APC's services, it is understood that our liability, if any, arising from this engagement will be limited to any losses occurring during periods covered by APC's audit and shall not include any amounts occurring in later periods for which APC is not engaged as auditors. In no event will APC's liability under the terms of this engagement letter include responsibility for any claimed incidental, consequential, or exemplary damages.

APC's maximum liability relating to services rendered under this letter (regardless of form of action, whether in contract, negligence or otherwise) shall be limited to the charges paid to APC for the portion of its services or work products giving rise to liability. In no event shall APC be liable for consequential, special, incidental, or punitive loss, damage, or expense (including without limitation, lost profits, opportunity costs, etc.) even if it has been advised of their possible existence.

In no event shall APC be liable to Company or to any third party, whether a claim be in tort, contract, or otherwise: (a) for any amount in excess of the total professional fees paid by Company to APC under this engagement letter; or (b) for any consequential, indirect, exemplary, punitive, lost profit, or similar damages, even if APC has been apprised of the possibility thereof.

Liability loss limitation/indemnity/hold harmless

APC's maximum liability to Company for any reason relating to the services under this letter shall be limited to the fees paid to APC for the services or work products giving rise to liability. In addition, Company will indemnify and hold harmless APC and its personnel from any claims, liabilities, costs, and expenses relating to our services under this letter, except to the extent finally determined to have resulted from the gross negligence or willful misconduct of APC.

APC's maximum liability to Company arising for any reason relating to services rendered under this letter shall be limited to three times the amount of fees paid for these services. In the event of a claim by a third party relating to services under this letter, Company releases and will indemnify and hold harmless APC and its personnel from all such claims, liabilities, cost and expenses, except to the extent determined to have resulted from the intentional or deliberate misconduct of APC personnel.

Disclaimer of warranty

All services will be rendered in good faith, by and under the supervision of qualified staff in accordance with the terms and conditions set forth in this letter. APC makes no other representation or warranty regarding either the services to be provided or any deliverables; in particular, and without limitation of the foregoing, any express or implied warranties arising by custom or usage in the profession, and warranties arising by operation of law are expressly disclaimed.

Alternative Dispute Resolution (ADR)

Any controversy or claim arising out of or relating to the services covered by this letter or hereafter provided by us to the Company (including any such matter involving any parent, subsidiary, affiliate, successor in interest, or agent of the Company or of APC) shall be submitted first to voluntary mediation, and if mediation is not successful, then to binding arbitration, in accordance with the dispute resolution procedures set forth in the attachment to this letter. Judgment on any arbitration award may be entered in any court having proper jurisdiction.

Binding arbitration

In the event either party claims a breach of any term of this engagement, such claim shall be determined, at APC's option, solely pursuant to a binding arbitration proceeding conducted under the rules then prevailing of the American Arbitration Association in the city where this agreement is signed, and the judgment or award of the arbitrators shall be binding and conclusive upon the parties and may be entered in any court of competent jurisdiction.

Jury waiver clause

In the unlikely event that differences concerning APC's services or fees should arise that are not resolved by mutual agreement, APC and Company both recognize that the matter will probably involve complex business or accounting issues that would be decided most equitably to both by a judge hearing the evidence without a jury. Accordingly, APC and Company agree to waive any right to a trial by jury in any action, proceeding, or counter-claim arising out of or relating to our services and fees for this engagement.

Limitation on period during which suit can be brought

In no event shall Company assert any claim or demand against APC more than six months after the services provided under this engagement letter have been completed.

Limitation on parties entitled to rely on work product

Our audit is intended for the benefit of Company and its shareholders and will not be planned or conducted in contemplation of reliance by any third party of any specific transaction. Therefore, items of a possible interest to a third party may not be specifically addressed or matters may exist that would be assessed differently by a third party, possibly in connection with a specific transaction. Accordingly, APC's audit is not intended for the benefit of any party other than Company and its shareholders. We acknowledge no responsibility to any such party except to the extent that such responsibility may exist under the law in the absence of a communication concerning the purported reliance by such party on APC's report.

Appendix B

CPR Corporate Policy Statement on Alternatives to Litigation©

Company____

We recognize that for many disputes there is a less expensive, more effective method of resolution than the traditional lawsuit. Alternative dispute resolution (ADR) procedures involve collaborative techniques which can often spare businesses the high costs of litigation.

In recognition of the foregoing, we subscribe to the following statements of principle on behalf of our company and its domestic subsidiaries:*

In the event of a business dispute between our company and another company which has made or will then make a similar statement, we are prepared to explore with that other party resolution of the dispute through negotiation or ADR techniques before pursuing full-scale litigation. If either party believes that the dispute is not suitable for ADR techniques, or if such techniques do not produce results satisfactory to the disputants, either party may proceed with litigation.

Chief Executive Officer____________________
Chief Legal Officer_______________________
Date ________________________________

* Our major operating subsidiaries are:

____

____

More than 4,000 operating companies have committed to the *Corporate Policy Statement on Alternatives to Litigation*©. The CPR Corporate Pledge obliges subscribing companies to seriously explore negotiation, mediation or other ADR processes in conflicts arising with other signatories before pursuing full-scale litigation. The list of companies subscribing on behalf of themselves and their major operating subsidiaries is available from CPR.

CPR Institute for Dispute Resolution
366 Madison Avenue, New York, NY 10017-3122
Tel (212) 949 6490 - Fax (212) 949-8859
March 1996

CPR Corporate Policy Statement on Alternatives to Litigation

Registry of Subscribers — July 1996

These 800 major companies listed below have signed the *Corporate Policy Statement on Alternatives to Litigation*© on behalf of themselves and 3,200 operating subsidiaries. The CPR Corporate Pledge obliges subscribing companies to seriously explore negotiation, mediation or other alternative dispute resolution (ADR) processes in conflicts arising with other signatories before pursuing full-scale litigation.

Abbott Laboratories
Ace Hardware Corporation
Acheson Industries. Inc.
Acme Steel Company
Adolph Coors Company
Advanced Micro Devices, Inc.
Aetna Life & Casualty Co.
Ag Processing, Inc.
AGA Gas, Inc.
Agri-Mark, Inc.
Agway, Inc.
H.F. Ahmanson & Company
Aid Association for Lutherans
Air Products & Chemicals, Inc.
Airborne Freight Corporation
Albank Financial Corp.
Albany Engineering Corp.
Albert M. Higley Company
Alcan Aluminum Corpontion
Alco Standard Corporation
ALCOA
Alexander & Alexander Services,Inc.
Alexander & Baldwin, Inc.
Allegheny Corporation
The Allen Group, Inc.
Allen-Bradley Company
Allergan, Inc.
Allied Signal Inc.
AMAX Inc.
AMEDIC AB
American Cyanamid Company
American Express Company
American Financial Corporation
American Family Mutual Insurance Company
American Greetings Corporation
American International Group, Inc.
American National Can Company
American Petrofina, Inc.
American President Companies, Ltd.
American Standard Companies Inc.
American Sterilizer Company
American Stores Company
American Telephone & Telegraph
AMETEK, Inc.
Amgen Inc.
Amoco Corporation
AMP Incorporated
AMR Corporation
Amsted Industries, Inc.
Amtran, Inc.
Anadarko Petroleum Corporation
Analog Devices Inc.
Anchor Glass Container Corp.
Andersen Corporation
Andron Construction Corporation
Angelica Corporation
Anheuser-Busch Companies, Inc.
Anschutz Corporation
Apple Computer, Inc.
Arcadian Corporation
Archer-Daniels-Midland Company
Aristech Chemical Corp.
Arkansas Best Corporation
Arvin Industries Inc.
ASARCO, Inc.
Ashland Oil, Inc.
Associated Electric & Gas Insurance Services Limited ("AEGIS")
Atlantic Richfield Company
Atochem North America Corporation
Avery Dennison Corporation
Avon Products, Inc.
Baker Hughes Incorporated
Ball Corporation
Bancal Tri-State Corporation
Bancorp Hawaii, Inc.
Bandag, Incorporated
Bankamerica Corporation
Bankers Trust NY Corporation
BASF Corporation
Bassett Furniture Industries, Inc.
Baxter International, Inc.
Bechtel Group, Inc.
Bell Atlantic Corporation
Bell & Howell
BellSouth Corporation
Bemis Company, Inc.
Bernard Johnson, Inc.
Best Products Company, Inc.
Bethlehem Steel Corporation
Betz Laboratories. Inc.
Bindley Western Industries, Inc.
BioWhittaker, Inc.
Bird, Inc.
Black & Decker Corporation
E. E. Black Ltd.
Block Drug Company, Inc.
Blount, Inc.
Blue Bell, Inc.
Boehringer Mannheim Corporation
Boeing Company
Boise Cascade Corporation
Borden, Inc.
Bourns, Inc.
Bowater, Inc.
Briggs & Stratton Corporation
Bristol-Myers Squibb Company
Brooklyn Union Gas Company
Brown-Forman Corporation
Brown & Root, Inc.
Browning-Ferris Industries, Inc.
Brunswick Corporation
Brush Wellman, Inc.
Budd Company
Budget Rent a Car Corporation
Bulova Corporation
Burlington Industries, Inc.
Burlington Motor Carriers Inc.
Burlington Resources, Inc.
Butler Manufacturing Company
Cabot Corporation
California and Hawaiian Sugar Company
Camco International Inc.
Cameron Mutual Insurance Co.
Canadian Marconi Company
Capital Cities/ ABC, Inc.
Capital Holding Corporation
Cardinal American Corporation
Cardinal Distribution, Inc.
Cargill, Incorporated
Carlson Companies. Inc.
Carnation Company
Carnival Corporation
E.R. Carpenter Company, Inc.
Carolina Freight Corporation
Carolina Power & Light Company
Carpenter Technology Corporation
Carter Hawley Hale Stores, Inc.
CasChem, Inc.
Caterpillar, Inc.
CBI Industries, Inc.
CDI Corp
Ceco Industries, Inc.
Centel Corporation
Centerior Energy Corp.
Centex Corporation
Central Bancshares of the South, Inc.
Central Life Assurance Company
Central Vermont Public Service Corporation

CertainTeed Corporation
Cetus Corporation
The Charles Schwab Corporation
The Chase Manhattan Corporation
Chevron Corporation
Chicago Pneumatic Tool Company
Chrysler Corporation
Chubb & Son Inc.
CIGNA Companies
Cincinnati Financial Corporation
Cincinnati Milacron Inc.
CitiSteel USA, Inc.
Citizens Security Group, Inc.
City Federal Savings Bank
Clarcor
Clayton Corporation
Cleveland-Cliffs Inc.
Cleveland Clinic Foundation
Clorox Company
CMA Energy Corporation
CNA Insurance Companies
Coastal Lumber Company
Coats & Clark Inc.
Coca-Cola Company
Colgate-Palmolive Company
Collins Industries
Colonial Pipeline Company
Columbia Gas System, Inc.
Commonwealth Edison Company
Communications Equity Associates, Inc.
Comdisco Inc.
Connell Limited Partnership
Consolidated Natural Gas Company
Constar International, Inc.
Continental Bank Corporation
Continental Corporation
Control Data Corporation
Conwood Company LP
Cooper Industries, Inc.
Cooper Tire & Rubber Company
Coopers & Lybrand L.L.P.
Copperweld Corporation
Corning Incorporated
CPC International Inc.
Crompton & Knowles Corporation
Cross & Trecker Corporation
Crowley Maritime Corporation
Crown Central Petroleum Corporation
CTS Corporation
Cushman & Wakefield
Cypress Semiconductor Corporation
Dana Corporation
Dan River Inc.—Chemical Products Division
Dauphin Deposit Corporation
Day International Corporation
Dayton Hudson Corporation
Dean Foods Company
Deere & Company
Degussa Corporation
DEKALB Energy Company
DEKALB Genetics Corporation
Del Webb Corporation
Delta Air Lines Inc.
Deluxe Corporation
Dennis Chemical Company
Dentsply International Inc.
Deposit Guaranty National Bank
Detroit Edison Company
Dexter Corporation
DHL Airways
DHL Worldwide Express
The Dial Corp
Diamond Shamrock, Inc.
A. B. Dick Company
Diebold, Inc.
Digital Equipment Corporation
Dispute Resolution Services, Inc.
Dominick's Finer Foods, Inc.
R. R. Donnelley & Sons
Dover Corporation
DowElanco
Downey Savings and Loan Association
Dr Pepper/Seven-Up Companies, Inc.
Dresser Industries, Inc.
DSC Communications Corporation
Duke Power Company
DynCorp
Eagle-Picher Industries, Inc.
East Ohio Gas Company
Eastman Kodak Company
Eaton Corporation
EBCO Manufacturing Company
Echlin Inc.
Ecolab Inc.
EG&G, Inc.
E. I. du Pont de Nemours and Company
ELCOR Corporation
ELDEC Corporation
Eli Lilly & Company
Emerson Electric Co.
Engraph, Inc.
ENSR Corporation
Entergy Corporation
EOTT Energy Partners, L.P.
A. Epstein and Sons International, Inc.
Erb Lumber Company
Ernst & Young, LLP
Estee Lauder Inc.
Exide Corporation
Fabri-Centers of America, Inc.
Falcon Tool Company
Farm & Home Financial Corporation
Farm House Foods Corporation
Farmers Insurance Group of Companies
Farmland Industries, Inc.
Fedders Corporation
Federal Express Corporation
Federal Paper Board Company, Inc.
Federal Signal Corporation
Federal-Mogul Corporation
Federated Department Stores
Ferro Corporation
Fireman's Fund Insurance Companies
Firestone Tire & Rubber Company
First Bank System, Inc.
First Brands Corporation
First Chemical Corporation
First Chicago Corporation
First Data Corporation
FirstFed Financial Corp.
First Financial Corporation Interstate Bancorp
First Maryland Bancorp
First National Supermarkets, Inc.
First Virginia Banks, Inc.
Firstar Corporation
Flagstar Corporation
Fleetwood Enterprises, Inc.
Fleming Companies, Inc.
Florida Rock Industries, Inc.
John Fluke Mfg. Co., Inc.
Fluor Corporation
Flying J Inc.
FMC Corporation
FMR Corporation
Ford Motor Company
Fort Howard Corporation
Forte, Inc.
Fourth Financial Corp.
FoxMeyer Health Corp.
Frito-Lay, Inc.
Fruehauf Corporation
Fuqua Industries, Inc.
GAF Corporation
Gannett Co., Inc.
Gap, Inc.
Gates Corporation
GATX Corporation
GEICO Corporation
General Alum & Chemical Corporation
General Cinema Corporation
General Dynamics Corporation
General Electric Company
General Instrument Corporation
General Mills, Inc.
General Motors Corporation
General Public Utilities Corporation
General Reinsurance Corporation
General Signal Corporation
Genuine Parts Company
Georgia Gulf Corporation
Georgia Pacific Corporation
Giant Food, Inc.
Gibraltar Financial Corporation
Gifford-Hill & Company, Inc.
GIW Industries, Inc.
Global Petroleum Corp.
Gold Kist, Inc.
Goldman, Sachs & Co.
Golub Corporation
B.F. Goodrich Company

Goodyear Tire & Rubber Company
W.R. Grace & Company
Graco Inc.
Grand Trunk Corporation
Graphic Controls Corporation
Graybar Electric Company, Inc.
Great American Insurance Cos.
Great Lakes Chemical Corporation
Great Lakes Construction Company
Great West Casualty Company
Great Western Financial Corporation
Greyhound Lines, Inc.
Grolier, Inc.
Grow Group, Inc.
Grumman Corporation
GTE Corporation
Guardian Industries Corporation
Guilford Mills, Inc.
Gulfstream Aerospace Corporation
Guy F. Atkinson Company of California
HAL, Inc.
Halliburton Company
M. A. Hanna Company
Hanover Insurance Company
Hanseco
Harley-Davidson, Inc.
Harleysville Insurance Companies
Harnischfeger Industries, Inc.
Harper Group Harsco Corp.
The Hartz Group, Inc.
Harvest States Cooperatives
Heinen's Inc,
Hemphill Brothers, Inc.
Hercules, Inc.
Hershey Foods Corporation
Hewlett-Packard
Hillenbrand Industries
Hillman Company
Hills Department Stores, Inc.
Hilton Hotels Corporation
Himont, Inc.
HNSX Supercomputers, Inc.
Hoechst Celanese Corporation
Hoffmann—La Roche Inc.
Home Depot, Inc.
Home Life Insurance Company
Homestake Mining Company
Hon Industries Inc.
Honeywell, Inc.
Hormel Foods Corporation
Household International
Howard Corporation
J. M. Huber Corporation
Huntington Bancshares Incorporated
ICI Americas, Inc.
IDEX Corporation
IDS Financial Services, Inc.
IDX Systems Corporation
Illinois Power Company
Illinois Tool Works Inc.
IMC Fertilizer Group
IMO Industries, Inc.
Imperial Holly Corporation
Indiana Farm Bureau Cooperatives Association, Inc.
Ingersoll-Rand Company
Inland Steel Industries, Inc.
Insilco Corporation
Intel Corporation
Intercraft Industries, L. P.
The Interlake Corporation
Intermedics, Inc.
International Business Machines (IBM)
Interpublic Group of Companies,Inc.
Irvine Company
ITT Corporation
IU International Corporation
Jack Eckerd Corporation
Jefferson Smurfit Corporation
John Hancock Mutual Life Insurance Company
Johnson Controls
Joslyn Corporation
Jostens, Inc.
Joy Technologies Inc.
JP Foodservice, Inc.
Kaiser Aluminum & Chemical Corporation
Kanematsu USA, Inc.
Kellogg Company
Kellwood Company
Kelly Services, Inc.
Kendall Company
Kennedy Van Saun Corporation
The Keyport Life Insurance Co.
KFC Corporation
Kimball International, Inc.
Kolene Corporation
KPMG Peat Marwick LLP
Kroger Co.
Laclede Steel Company
Lamson & Sessions Company
Landstar System, Inc.
Lear Seating Corporation
Learjet Incorporated Leaseway Transportation Corporation
Leggett & Platt, Inc.
Lennox International Inc.
Levitz Furniture Corporation
Lexmark International, Inc.
Liberty Mutual Insurance Company
Liberty Mutual Fire Insurance Company
The Life Insurance Co. of Virginia
Limited, Inc.
Lincoln National Corporation
Litton Industries, Inc.
Lonza Inc.
The Louisiana Land and Exploration Company
Louisiana-Pacific Corp.
The LTV Corporation
Lukens Inc.
Lyondell Petrochemical Company
Mack Trucks, Inc.
Magellan Health Services
Magma Copper Company
Mallinckrodt Group Inc.
Manitowoc Company, Inc.
Manpower Incorporated
Manville Corporation
MAPCO Inc.
Marion Laboratories Inc.
Maritz Inc.
Mark Controls Corporation
Mark VII, Inc.
Marley Company
Martin Marietta Corporation
Maryland Casualty Company
Masco Corporation
MascoTech, Inc.
Mattel, Inc.
Mayflower Group, Inc.
Maytag Corporation
Massachusetts Mutual Life Insurance Company
McCormick & Company, Inc.
McDermott International, Inc.
McDermott, J. Ray, S.A.
McDonald & Company Securities, Inc.
McDonald's Corporation
McDonnell Douglas Corporation
MCI Communications
McKesson Corporation
McNally Pittsburgh, Inc.
Mead Corporation
Medtronic, Inc.
Mellon Bank Corporation
Menasha Corporation
Mercantile Bankshares Corporation
Mercantile Stores Company Inc.
Merck & Company Inc.
Meredith Corporation
Meridia Health System Merisel, Inc.
Mesa Limited Pannership
Metropolitan Property & Liability Insurance Company
Miami Elevator Company
Michigan National Corporation
Microsoft Corporation
Miles Inc. Milk Marketing Inc.
Milliken & Company
Millipore Corporation
Minnesota Mining & Manufacturing Company (3M)
Minorco (U.S.A.) Inc.
Mitchell Energy & Development Corp.
Mitsui Manufacturers Bank
Mobay Corporation
Mobil Corporation
Modine Manufacturing Company
Monogram Industries, Inc.
Monsanto Company
Montgomery Ward & Co., Incorporated
J.P. Morgan & Co. Incorporated

Morgan Stanley Group Inc.
Morrison Incorporated
Morrison-Knudsen Corporation
M.A. Mortenson Company
Morton International, Inc.
Motorola, Inc.
Mount Vernon Mills, Inc.
Munsingwear, Inc.
Mutual Life Insurance Company of New York
NACCO Industries, Inc.
Nalco Chemical Company
National Convenience Stores Incorporated
National Grange Mutual Insurance Company
National Gypsum Company
National Life Insurance Company
National Medical Enterprises Inc.
National Railroad Passenger Corporation
National Semiconductor Corporation
National Service Industries, Inc.
National Starch & Chemical Company
National Steel Corpontion
National Westminster Bancorp Inc.
Nationsbank Corporation
Nationwide Murual Insurance Company
Navistar Intemational Corporation
NCH Corporation
NEC Technologies, Inc
NEC USA, Inc.
Nestle Foods Corporation
Newell Company
New York State Electric & Gas Company
Niagara Mohawk Power Corporation
Nicor Inc.
Noland Company
Nordson Corporation
Nordstrom, Inc.
Norfolk Southern Corporation
Northeast Savings
Northeast Utilities
Northern Trust Corporation
Northrop Corporation
Northwestern Mutual Life
Norton Company
Norwest Corporation
NTH Consultants, Ltd.
NWNL Companies, Inc.
NYNEX Corporation
Ocean Spray Cranberries, Inc.
Ogden Corporation
Ohio Bell Telephone Company
Ohio Casualty Corporation
Ohio Edison Company
Old Dominion Freight Line Inc.
Olin Corporation
OM Group, Inc.
OMI Corporation
Oneida Limited
Orion Capital Corporation
Orion Corporation
Oshkosh Truck Corporation
Owens-Corning World Headquarters
Owens-lilinois Inc.
Paccar Inc.
Pacific Enterprises
Pacific Gas and Electric Company
Pacific Mutual Life Insurance Company
R. B. Pamplin Corporation
Pacific Telesis Group
Pall Corporation
Papercraft Corporation
Parker-Hannifin Corporation
The Parsons Corporation
Payless Cashways, Inc.
Peat Marwick Main & Company
J. C. Penney Company, Inc.
Pennsylvania Power & Light Company
Pennzoil Company
Pentair Inc.
People's Bank
Pep Boys
PepsiCo, Inc.
The Perkin—Elmer Corporation
Perini Corporation
Petrolite Corporation
Pfizer Inc.
PHH Group Inc.
Philadelphia Electric Company
Philip Morris Companies, Inc.
Philips Electronics
Phillips Petroleum Company
Phoenix Home Life Mutual Insurance Company
Pillsbury Company
Pioneer Hi-Bred International. Inc.
Pitt-Des Moines Inc.
Pittston Company
Pittway Corporalion
Pizza Hut, Inc.
Plaskolite, Inc.
PNC Bank Corp.
Pneumo Abex Corporation
PPG Industries Inc.
Pratt & Lambert
Praxair, Inc.
Premark Intemational, Inc.
Price/Costco, Inc.
Price Waterhouse
Principal Financial Group
The Progressive Corporation
Prudential Insurance Company of America
PSI Holdings, Inc.
Public Service Company of Colorado
Public Service Electric & Gas Company
Publicker Industries Inc.
Purolator Products Company
Quaker State Corporation
Ralston Purina Company
Rayonier
Raytheon Company
Reckitt & Colman Inc.
Recognition Equipment Incorporated
Reebok International Ltd.
Reichhold Chemicals, Inc.
Reilly Industries, Inc.
Restaurant Enterprises Group, Inc.
Revco D.S., Inc.
Rexnord, Inc.
Reynolds Metals Company
Rich Products Corporation
Riceland Foods, Inc.
RJR Nabisco
Roadway Services Inc.
Robbins & Myers, Inc.
C.H. Robinson, Inc.
Rochester Telephone Corporation
Rockwell International
Rohm & Haas Company
Rolm Systems
Roundy's, Inc.
Royal Group, Inc.
Rubbermaid Inc.
Rykoff—Sexton, Inc.
Ryland Group, Inc.
Safeco Corporation
Safety-Kleen Corp.
Safeway Inc.
Salomon Inc
Sammons Enterprises, Inc.
Sandoz Corporation
Santa Fe Pacific Corporation
Sanwa Bank California
Sara Lee Corporation
Sara Lee Corporation (Canada)
Savannah Foods & Industries, Inc.
Save Mart Supermarkets
Savin Corporation
SC Companies, Inc.
SCEcorp
Schering-Plough Corporation
Schlumberger Limited
Schwan's Sales Enterprises, Inc.
Science Applications Int'l Corp.
Scientific-Atlanta, Inc.
Sea-Land Service, Inc.
Sealy Corporation
G.D. Searle & Company
Sears, Roebuck and Company
Security Pacific Corporation
Sentry Insurance Group
Service Merchandise Company
Servistar Corporation
SFN Companies, Inc.
Shaklee Corporation
Shawmut National Corporation
Sherwin Williams Company
Shoney's, Inc.

Siemens Capital Corporation
Siemens Energy & Automation, Inc.
Silicon Graphics, Inc.
J. R. Simplot Company
Simpson Investment Company
Singer Company
Smith Corona Corporation
A.O. Smith Corporation
Smith International Inc.
SmithKline Beecham Company
Smith's Food & Drug Centers. Inc.
Snap-On Tools Corporation
SnyderGeneral Corporation
Solvay America, Inc.
Sonoco Products Company
Sony Corporation of America
Southern National Corporation
Southern States Cooperative, Inc.
Southland Corporation
Southwestern Bell Corporation
Sprague Technologies, Inc.
Spire Corporation
Sprint Corporation
Springs Industries, Inc.
Square D Company
St. Paul Companies, Inc.
Standard Chartered PLC
Standard Products Company
Standex International Corporation
Stanhome Inc.
Stanley Works
State Farm Mutual Automobile Insurance Company
State Mutual Life Assurance Company of America
Stepan Company
Stewart & Stevenson Services, Inc.
Stone & Webster, Incorporated
Stop & Shop Companies, Inc.
Storage Technology Corporation
The Stroh Companies, Inc.
Sturtevant, Inc. Subaru of America Inc.
Summit Bancorporation
Sun Company, Inc.
Sun-Diamond Growers of California
Sundstrand Corporation
Sun Electric Company
Supervalu Inc.
Suter Company, Inc.
Svedala Industries, Inc.
Sweetheart Cup Company
Syntex Corporation
Syro Steel Company
SYSCO Corporation
Talley Industries, Inc.
Teachers Insurance & Annuity Association/College Retirement Equities Fund (TIAA-CREF)
Tecumseh Products Company
Tejas Gas Corporation
Tektronix, Inc.
Temple-Inland Inc.
Tenneco Inc.
Teradyne Inc.
Terex Corporation
Tesoro Petroleum Corporation
Texaco Inc.
Texas Industries, Inc.
Texas Instruments Inc.
Textron Inc.
Thomas Industries Inc.
Thomas J. Lipton, Inc.
Three Com Corporation
Thrift Drug, Inc.
Thrifty Payless, Inc.
The Times Mirror Company
Time Warner Inc.
Timex Corporation
The Timken Company
TJX Companies, Inc.
Tokheim Corporation
Tom Brown Inc.
Toro Company
Toyota Motor Sales, U.S.A., Inc.
Trans World Airlines
Transamerica Corporation
Transammonia, Inc.
Travelers Companies
Tribune Company
TriMas Corporauon
Trinova Corporauon
TRW Inc.
TU Electric
Turner Corporation
Tyco Toys, Inc.
UAL Corporation
UJB Financial Corp.
Unigard Security Insurance Company
Union Bank
Union Carbide Corporation
Union Pacific Corporation
Unionfed Financial Corp.
Uniroyal Chemical Company, Inc.
UNISYS Corporation
United Energy Resources, Inc.
United Industrial Corporation
United Parcel Service of America
United Services Automobile Association
United States Shoe Corporation
United Stationers, Inc.
United Technologies Corporation
Univar Corporation
Universal Foods Corporation
UNOCAL Corporation
UNUM Corporation
U.S. Bancorp
USF&G Corporation
U S West, Inc. USX Corporation
Valassis Communications, Inc.
Valero Energy Corporation
Valley National Corporation
Van den Bergh Foods Company
Van Dorn Company
Varian Associates, Inc.
Venture Stores, Inc.
Viacom Inc.
VF Corporation
Vista Chemical Company
Volkswagen of America, Inc.
Vulcan Materials Company
Waban Inc.
Wachovia Corporation
Wal-Mart Stores, Inc.
Walgreen Company
Warner-Lambert Company
Washington Energy Company
Washington Federal Savings
Washington Mutual Savings Bank
Watkins-Johnson Company
Weirton Steel Corporation
Wellman, Inc.
Wells Fargo & Company
West Point-Pepperell, Inc.
Western Capital Investment Corp.
Western Resources
Westinghouse Electric Corporation
Wetterau, Inc.
Weyerhaeuser Company
Wheeling Pittsburgh Corporation
Whirlpool Corporation
White Consolidated Industries, Inc.
Whitman Corporation
Whittaker Corporation
A. L. Williams Corporation
Williams Companies
Williams Patent Crusher & Pulverizer Company
Willmut Gas & Oil Company
Wilson Bennett, Inc.
Wilson Foods Corporation
Winn-Dixie Stores, Inc.
Winnebago Industries, Inc.
Wisconsin Energy Corporation
Wisconsin Public Service Corporation
Witco Chemical Corporation
WMX Technologies. Inc.
Wold Oil & Gas Company
Wolverine World Wide, Inc.
Woodward Governor Company
Woodward & Lothrop Incorporated
Worthington Industries, Inc.
Wyle Laboratories
Xerox Corporation
Zenith Electronics Corporation
Zurn Industries, Inc.

Preliminary Research on the Future of Auditing — Background Paper for the Committee (October 1994)

Introduction

This section deals with issues regarding the future of the assurance function. The trends of thinking expressed in recent studies and analyses are articulated. But, the section draws no conclusions nor critiques the validity of the conclusions expressed by others. It is intended to provide a compendium of views for the Committee's consideration.

The section does not consider the views expressed in Robert K. Elliott's article, "Modernizing the Audit Function," or at the Santa Fe conference. Those views should be considered separately as the rationale for the Committee's charge. This section, instead, considers other points of view, many of which support the concerns that gave rise to the Committee's charge.

One ground rule: The analysis does not consider some issues that might be important but, at this stage, distracting. They include legal liability concerns, changes to accounting education, and international harmonization. Allowing the Committee to establish a vision for the future and then charting a route seems a more promising strategy than looking at the road to figure out where it can take us. Warren Bennis (USC) says, "Leaders ask the what and why questions, not the how question."

Note: Numbers in square brackets following quotes refer to the resources listed at the end.

Is There a Problem?

Some observers believe that auditors are not meeting the needs of investors, creditors, and other financial statement users. Robert Mednick (Arthur Andersen & Co.) said, "Deficiencies can be classified into four broad categories:

- The current accounting model is becoming irrelevant.
- More is expected of auditors than an opinion on financial statements.
- The concept of audit independence needs to be refined and clarified.
- Auditors are inhibited by the realities of litigation." [37]

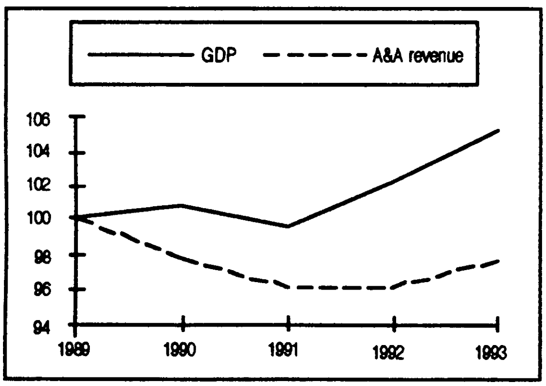
Robert Elliott (KPMG Peat Marwick) said, "If the purpose of accounting information is to support business decision-making, and management's decision types are changing, then it is natural to expect accounting to change....Restricted choice is acceptable to customers only as long as there are no alternatives in the marketplace." [24]

The auditing profession has achieved relatively little growth in recent years. According to *Accounting Today*, auditing revenue for the 60 largest firms for the past five years in inflation-adjusted (1989) dollars is (in $ million) [1]:

	1989	1990	1991	1992	1993
Big-6	$5,212	5,122	5,007	5,001	5,096
Nos. 7-60	840	795	807	815	817
Total	$6,052	5,917	5,814	5,816	5,913

Including the smallest firms in this analysis would be unlikely to change the pattern significantly. Thus, on an inflation-adjusted basis, the profession has shown *no net growth* over the past five years. If one adjusted the data to eliminate growth mandated by regulation, primarily in the government and non-profit sectors, it might turn out that the rest of the market may actually have shrunk.

As the following chart indicates, the softening of the market for audits is not just a function of the recent recession. In constant dollars the U.S. gross domestic product has increased since 1989 while the sales of audit services among the 60 largest CPA firms has shrunk.



Auditing might be considered a mature industry. A product's life cycle generally comprises four stages: introduction (a time of relatively low sales), growth (a time of rapidly expanding sales), maturity (sales level off), and either renewal or decline.

Dowdy and Nikolchev (SRI International) described symptoms of maturity as:

- Market saturation. This occurs when demand for a product has leveled off because most of the likely customers have purchased, new purchases are made only to replace consumption.
- Inelastic demand.
- Overcapacity.
- Displacement. This occurs when a product is displaced in its function by a new product or system that fills the same customer need in a better way.
- Technology maturity.
- Customer sophistication. When a product is first introduced or an industry is new, customers must accept what is offered. As they become familiar and develop experience, they learn to demand improvements in quality, features, price, and service.... A

> rising level of customer complaints to governmental agencies may be a symptom of impending maturity and a warning to producers.

They reasoned further:

> Once standardization [due to maturity] occurs, the basis for competition becomes tightly coupled to the price of the product or service and the perceived benefits. The process of maturity can be reversed and an industry can 'demature.' The change can be either market or technology driven or both.
>
> For a technology based industry, dematuring is typically characterized by movement away from unit standardization, an increase in diversity of product or service technology, and an increase in the competitive visibility of that technology. [22]

The data suggest that new customers are not being attracted to buy audits (or to demand them of others). It follows that, in time, audits will be replaced by other products. Barry Brownlow (Brownlow, Thompson, & McKay) noted, "Profit is a strategic alliance between Great Plains Software and Microsoft to bring the business customer who has less than $3 million in sales volume fantastic accounting software that a non-accountant can use within one day and be CPA level proficient within one or two months." It is said to be compatible with Windows and available in discount stores for $135. He said, "Our customers do not need accountants who process accounting information.... How long will it be before we merely certify that the software is working properly?" [18]

Auditors have the skills that can provide value to potential users. The question is: what product do we deliver to satisfy users? Brownlow said further, "Our biggest strength: Our customers trust us...[but] Our customers no longer need what we used to be known for — accounting and auditing." [18]

Future Trends

In visioning for the future it is necessary to consider the events that are already apparent. A recent issue of *Accounting Today* juxtaposed the following stories:

- An AICPA-sponsored survey indicated that small businesses relied on CPAs more than on any other professionals. This paralleled the findings of a Mass Mutual survey done last year. When asked in the latest survey what additional services they'd like 38% (the highest response) said "none."
- Ralph Nader suggested the establishment of a Financial Consumers Association dedicated to protecting the public from financial fraud and to keep corporations and auditors honest.
- Franchising of accounting businesses is unstable and capricious but some believe that it is finally catching on in the accounting community.
- Peat Marwick is dramatically cutting back its recruitment of entry-level accountants. It has significantly changed the way it conducts its compliance services and needs far fewer individuals at inexperienced levels. [2]

The Auditing Standards Board predicted the following trends it expected to affect the setting of auditing standards in the 1990s:

a. Growing litigation
b. Advances in information technology
c. Loss of public confidence
d. Concerns about subjective/qualitative aspects of operations
e. Increasing use of soft information in GAAP
f. More complex accounting rules
g. Increasing public expectations for more disclosures
h. Growing auditing requirements imposed by government
i. Increasing globalization of capital markets." [6]

Others have predicted the following trends:

Types of Information.

AICPA Future Issues Committee: "An increasing volume and flow of information of all types and a growing reliance placed upon such information by decision-makers within both the public and private sectors create a greater need for assuring that the information is valid for the purposes for which it is to be used." [9]

John S. Fisher (Digital Equipment Corp.): "In spite of increased accounting head counts, lines of managers grew at management accountants' doors waiting for business information that CPAs either couldn't supply or couldn't supply quickly enough. That's why operating managers set up bootleg information systems." [27]

The Auditing Practices Board in the UK saw future trends as including: developments in information technology; increased internationalization of business and other new demands on auditing, including greater involvement in corporate governance; companies' future prospects and risks; and environmental compliance. [15]

Technology

The AICPA Future Issues Committee also said, "Given the technological developments and our increasingly information-based society, CPAs will become more involved with information technology. In order to remain competitive in such an environment, firms will have to acquire access to technological developments such as expert systems. The demands for information management must be met to ensure the profession's continued relevance." [4]

King, Lewis, and Abendschein: "The use of the microcomputer to perform the basic and advanced audit functions will grow rapidly. What lies beyond these sophisticated applications? One such development will be the use of the micros to continuously monitor the client's system of internal control and to create audit files from the client's data controlled by the auditor." [34]

James A. Sylph (Ernst & Young): "Computer modeling will allow instantaneous translation of assumptions into numerical equivalents. The smart chips contained in the computers developed two generations from now will evaluate the reasonableness of assumptions and historical statistics stored in the programs and eliminate some of the less reasonable management guesses." [43]

Donald A. Brown (Coopers & Lybrand): "As information technology is expanding in importance, going beyond financial systems to operational systems critical to business success, responsibility for it is moving to a new individual: the chief information officer (CIO). The CIO position brings responsibility for all of an organization's information systems under one senior executive's control. (The CFO may even report to the CIO.)" [17]

King, Lewis, and Abendschein: "The tremendous gains in productivity afforded by micros permits a smaller audit team. It is possible that the demand for auditors, especially in entry-level positions will decrease. This, in turn, could signal a drop in enrollment of students majoring in accounting." [34]

AICPA Future Issues Committee identified these technology-based trends:

- Technology — changes in developments in computers, information technology, communications, and the various impacts of such changes on organizations, personnel needs, and the like.
- Competition — changes in competition arising both from within the profession and outside sources.
- Coupled with changes in technology, competition will add to the trend towards greater differences among firms in terms of size, and nature of practice.

It also said that:

- The profession will continue to experience both difficulty and opportunity from the increasing amounts of information as we move to an information-based economy and the attest function continues to cover a much wider range of information.
- The gap between public expectations and the ability of the profession to meet them will, however, continue as the public continues to demand that CPAs provide a higher level of performance.
- Firms/CPAs will be providing more forward-looking services and, as the relative value of future-oriented financial and nonfinancial information will grow, the usefulness of historical cost financial statements will decline.
- The involvement with a greater range of services, particularly when the delivery of those services involves aggressive marketing, could adversely affect the public's perception of the integrity and objectivity of CPAs.

It emphasized the following strategic thrust: Emphasize the need to continually improve quality in the performance of professional services.... "2. Encourage technical committees to consider the need for standards and the design of programs which focus on new services." [4]

Brown: "In time, auditors will concentrate their work solely on areas likely to produce findings leading to change, to the exclusion of more traditional assurance-based audit procedures. They will search for exceptions and anomalies not only in data, but also in systems that produce data. Eventually, the entire focus of auditing may move to reporting on systems and controls." [17]

Sylph:

> Annual financial statement audits or reviews will become an ancillary service. The real work on which lenders and shareholders will rely will be financial forecasting and the attestation to the accuracy of quarterly reports, which will be filed within 14 days of period ends.... It will be on the basis of these forecasts, and not the historical financial statements, that lending decisions will be made."
>
> The regulatory trend will continue, with more emphasis on management accountability. This, in turn, will reduce the importance of, and the heat on, the financial attest function [sic].
>
> As concern about the environment grows, most corporations will be producing environmental reports with their annual information package and these will be accompanied by an auditor's report on policies and procedures put in place by management to ensure corporate compliance with environmental legislation. [43]

Brown: "We contended that unless the profession is seen to be in the forefront of the information age, it will not attract the brightest and best graduates." [17]

AICPA Future Issues Committee: "The types of information likely to require attestation and the number of users of nonfinancial information are expanding as technology produces an increasing amount and variety of new types of information. As a result, the attest function should expand. However, increased liability exposure and costs to maintain quality are contributing to a lessening of firm involvement in the attest area. As a result, greater efforts will be needed to promote and increase the value of attest services." Suggested action plans include: Identify the types of information likely to require attestation and potential users, develop professional standards or guidelines for new areas of attestation, market the profession's capabilities and availability, build a consensus within the profession for the assumption of additional responsibilities to protect the public interest, and study the public's expectations so that we can determine if they can be met. [4]

James A. Emerson (*Professional Services Review*) said, "The accounting profession must become associated with information which is in harmony with the current pace of business activity and relevant in the business decision making process. As accountants have made little, if any, progress toward this goal, users are becoming increasingly frustrated and seeking other sources of information." [25]

Implementing Change

The above discussion suggests that the profession will have to consider change to confront the future challenges. Before considering specific changes it should be noted that changing the profession's direction is not easy. The following observations address some commentators observations on change.

Dowdy and Nikolev observed that, "Typically, companies in mature industries regard change as a threat and tend to react defensively rather than taking a pro-active stand to turn threats into potentially lucrative business opportunities." [22]

An essay written almost 45 years ago noted, "The most striking thing in looking back on the history of auditing is how little its approach has changed when everything around has changed so much." [5]

In fairness, there are some changes CPAs cannot effect on their own. As the McFarlane Committee noted, "While the audit profession has been slow to adapt to a changing environment, this is in part because it cannot impose its will unilaterally on the management of companies who, in the absence of any statutory requirements, resist a wider role for auditors." [15]

John L. Carey, *The Rise of the Accounting Profession*, said: "CPAs, being human, have rarely embraced change with enthusiasm, or happily abandoned the security of the familiar. Many of their advances, indeed, have been the result of outside pressures. But to do them credit, the CPAs have had the intelligence to recognize the significance of those pressures — and to react to them before it is too late."

Finally, Niccolo Machiavelli, *The Prince*, said: "there is nothing more difficult, more dangerous or more apt to miscarry than an endeavour to introduce new institutions. For he that introduces them will make enemies of all those who do well out of the old institutions, and will receive only cool support from those who would do well out of the new ones. This coolness is caused partly by fear of their opponents, who have the old laws on their side, and partly from the natural skepticism of mankind, who have no faith in new arrangements until they have been confirmed by experience. It follows that when those who are opposed to new institutions have an opportunity to attack them, they do so with partisan fervour, while the other side provide only a lukewarm defense."

The Auditor's Role

To determine the types of services that might add value, it is useful to consider the auditor's role in business and society.

Elliott stated it broadly, "Whenever (1) users need the information, (2) there is a conflict of interest between the preparer and user of the information, (3) the information is auditable, and (4) there is a favorable cost-benefit ratio for the attestation, the conditions for economic demand of attest services are in place." [24]

Similarly, William R. Kinney (University of Texas) said, "Attestation can add value for the owner [of a business] only if the buyer holds three beliefs. These are (1) the buyer believes that knowledge of the magnitude of GAAP earnings is valuable, (2) the buyer believes that the auditor is competent to detect important departures from GAAP, and (3) the buyer believes that the auditor is sufficiently trustworthy to report any important departures from GAAP." [35]

Mednick identified a core component of the CPAs' role, saying, "CPAs can, by virtue of their training, history, and orientation, best serve society as the premier supplier of worthwhile information to managements, boards of directors, and stakeholder groups." [37]

The Cohen Commission described the auditor's role as follows: "There is general agreement, however, on several aspects of the usefulness of *audited* financial statements. Most important, audited financial statements provide a means of confirming or correcting the information received earlier by the market. In effect, the audited statements help to assure the efficiency of the market by limiting the life of inaccurate information or by deterring its dissemination." [20]

The McFarlane Committee expressed the overall mission of the auditing profession as:

- Giving confidence in the integrity of corporate reported by public and private financial sector entities, for the benefit of stakeholders and society as a whole, by providing an external and objective view on the reports given by directors of companies' activities, performance, viability, and prospects; and
- Contributing to improving standards of corporate governance and behaviour.

It believed an audit should provide an independent opinion to those with an interest in a company that they have received from those responsible for its direction and management an adequate account of:

- the proper conduct of the company's affairs
- the company's financial performance and position
- future risks attaching to the company.

The annual financial statements required by statute are a declining part of the totality of corporate financial communication. At the same time, society's expectations of corporate conduct and accountability are changing substantially. It is of the essence that the role of audit should adapt to the changing environment in which it functions.

In the longer term, the APB proposes progressively to develop and define the role of auditors in relation to the wider aspects of corporate accountability and ethics. [15]

The Institute of Chartered Accountants of England and Wales observed that,

> In a 1991 survey by the City Research Group 96% of financial executives thought that auditors should take a much tougher line with the audit clients on accounting practices which give a misleading picture of profitability.

> For many the auditor is seen as a guardian of certain ideals or conditions of business and commercial activity, ideals which are not necessarily restricted to financial statements alone.... [quoting] "I think the principal role of the audit is to provide some degree of assurance to people who are outside the entity which is being audited about its probity...that the entity is run in a proper manner.... There's something wider than just reporting on the financial statements.... I think it goes to the heart of a business organisation, about whether it's actually run by fit and proper people really...and whether they have adequate systems for ensuring the integrity of the organisation."
>
> In order to address the audit expectations gap, the accounting profession should think more fundamentally in terms of its basic role rather than the addition or deletion of particular services. [31]

Brenda Porter's (Massey University) research on financial statement users in New Zealand provides insight on the perception of the auditor's role. She said,

> Although it is interesting to study the opinions of the interest groups and to speculate on reasons for differences, the significance of this portion of the research lies in the apparent lack of knowledge about auditors' duties that it revealed.
>
> The survey results suggest that some 60% of general public audit beneficiaries have very limited, if any, knowledge about auditors' duties. [39]

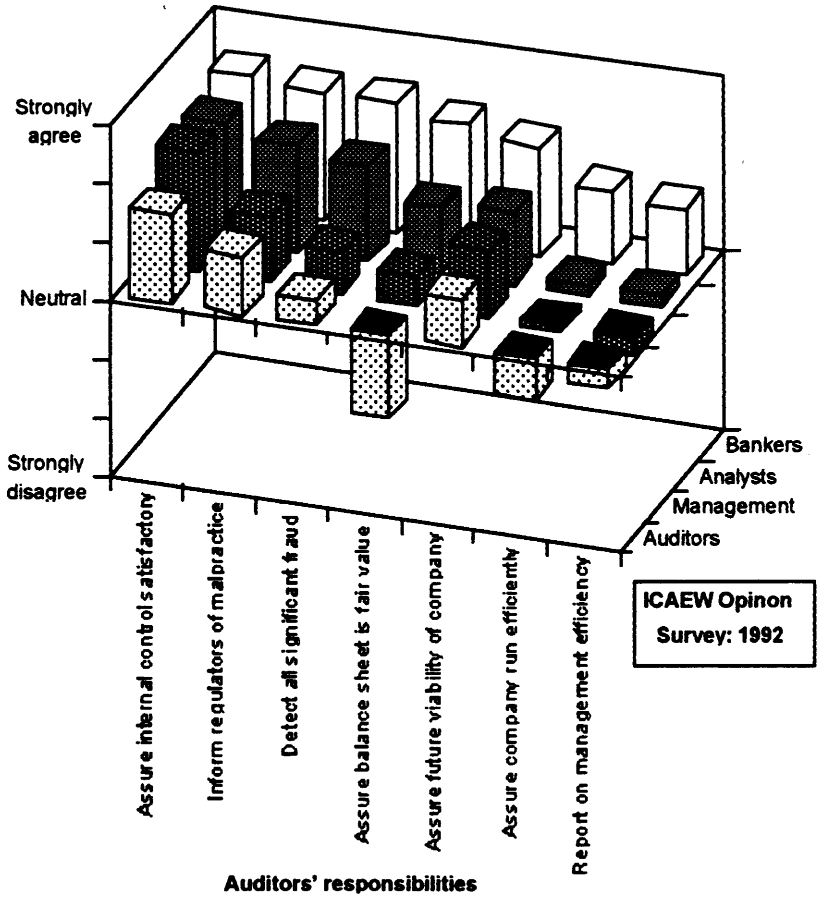
She listed 18 duties that users believe auditors should have. Some of the more interesting ones include:

- Examine and report on the company's internal controls.
- Disclose in the audit report illegal acts that directly affect the company's accounts (she believes this to be an existing responsibility in New Zealand).
- Audit published half-yearly financial reports.
- Examine and report on the fairness of financial forecasts.
- Report to a regulatory authority illegal acts uncovered in the company.
- Report to a regulatory authority suspicions of fraud.

She lists 12 duties that users believe auditors should not have. Some of them are:

- Report to the government on breaches of tax law.
- Examine and report on the efficiency and effectiveness of the company's management.
- Consider and report on the company's impact on its local community. [39]

The ICA of England and Wales provided a survey of opinions on auditor responsibilities. Some key findings are graphed below. [31]



Porter, who studied the expectation gap, observed that "It is pertinent to note that the four duties making the greatest contribution to the deficient performance gap (continued existence, misappropriations by senior management, deliberate distortion of financial information, and direct-effect illegal acts) all relate to (non)-disclosures in the audit report. This suggests that non-auditors consider that they are inadequately informed by auditors about adverse conditions or events occurring in auditee companies. It implies that non-auditors believe that auditors have information which they fail to disclose." [39]

The McFarlane Committee noted, similarly, that "there is a demand for auditors to recognize the interests of a wider group than shareholders alone. There are perceived gaps in the scope of the audit, particularly regarding directors' stewardship, future prospects and risks, fraud, internal controls and interim reporting."

It also noted that "auditors' reports are seen as uninformative, failing to disclose material findings, issues and concerns arising from an audit." [15]

The Cohen Commission considered the future of the auditor's role and concluded:

> If society perceives needs for new services, through private demands or through its legislators and government agencies, the public accounting profession should attempt to meet those needs within its abilities to deliver the requested services. If auditors

repeatedly fail to respond to reasonable requests for new services, the political system will alter the current arrangements.

Identifying the boundaries of the audit function provides a direction for expansion so that changes in the function need not be merely ad hoc solutions to specific issues. The auditor's association with interim information, other financial information in the annual report, or earnings forecasts should not be approached as separate services considered in isolation, but should be approached by examining their relation to the company's financial reporting process and the auditor's involvement with it.

After extensive consideration of the various issues before it, the Commission has concluded that the traditional association of independent auditors with annual financial statements is an obsolete, limited concept. The changing business and investment environment requires a more flexible and timely form of association, and the audit function should evolve in that direction. [20]

The Institute of Chartered Accountants of Scotland concluded that the auditor's role in the 21st century should include providing assurance that:

- the financial statements are right.
- the company will not fail in the foreseeable future.
- there has been no fraud.
- the company has acted within the law.
- the company has been competently managed.
- the company has adopted a responsible attitude to environmental and societal matters.

The report identified three types of stakeholders to whom the auditors are accountable:

- primary stakeholders, who are those with an ownership interest in the company;
- secondary stakeholders, who have a financial but not ownership interest, such as creditors, employees, customers and suppliers, and taxing authorities; and
- tertiary stakeholders, who are those without a direct financial interest but are affected, or believe themselves to be affected, by the way the company's resources are managed — they are interested in externalities, costs (such as pollution) and benefits that are not borne or received by the company and do not appear in its financial records.

The ICA added, "Recent Companies Acts have progressively required directors to include in the directors' report matters of more immediate concern to secondary and tertiary stakeholders than to primary stakeholders, e.g., political and charitable donations, policy on employment of disable persons [, and employee relations]." [32]

Possible New Directions

Potential new directions for assurance services include:

- Attesting to different kinds of information, not directly related to the financial statements.

- Reporting in new ways.
- Taking more responsibility for data and analysis.
- Providing information on the entity or management.
- Providing advice.
- Providing information not related to a specific entity.

Each of these possible directions is discussed in the sections that follow.

Attesting to Different Kinds of Information

The AICPA Future Issues Committee speculated on different types of assertions on which auditors might attest in the future. They included:

- The fairness of presentation of the basic financial statements in accordance with GAAP.
- The maintenance of effective management and internal controls.
- The compliance with applicable laws, regulations, policies, and procedures.
- The utilization of resources and operation of businesses in an efficient and economical fashion.
- The achievement of effective goals and objectives for a total organization and/or its various programs.
- The deterrence of fraudulent activities and results. [8]

The Breakthrough Model Task Force of the AICPA Special Committee on Financial Reporting noted that "Cooperative efficiency can be improved by accountability, and accountability is improved by improving the reckoning by which accountability is discharged. There are four generic types of improvement: increasing the amount of useful information, increasing the reliability of the reckoning information, increasing its timeliness, and decreasing its cost." [11]

Emerson said that auditors should provide assurance on risks, which he identified as market risk, administrative risk, finance risk, and production/service delivery risk. "An independent and credible analysis of business risk as described is not readily available from any existing professional service or information provider.... Firms would become so skilled in this analysis that it would quickly become the most valued part of their services."

He reasoned: "Being purveyors of important analysis, rather than reporting on compliance activities only, would significantly elevate the role of the accountant. The opportunity to be involved with high level analysis would also serve to attract the brightest graduates to the profession." [25]

The AICPA Special Committee on Financial Reporting (Jenkins Committee) described its model of financial reporting as follows: "The model provides information that is both reliable and relevant by expanding reorganizing, and changing the information currently provided by business reporting, is flexible in its application by reporting entities and is also limited to information that companies can provide at acceptable cost. The model does not satisfy all of the users' needs for information. Rather, it only provides that portion within management's expertise, and for which management is the best source." [12]

Although many observers have proposed expanding the information presented, Ray Groves (then Chairman of Ernst & Young) presented a counter argument. He said,

> From 1972 to 1992, the total pages in [a survey of] annual reports increased an average of 83% (from 35 to 64 pages).... If the compound growth rates for the past 20 years continue, by 2012 we'll be looking at annual reports with roughly 70 pages of footnotes and 50 pages of MD&A.
>
> Advances in technology promise to add to the disclosure glut, due to the ease of accessing disclosures and the almost unlimited capacity for storage. But there's no technology to permit us to read at a much faster rate. And there's still only 24 hours in each day to read and understand the growing quantities of information for each company." [28]

Richard Measelle (worldwide managing partner of Arthur Andersen & Co.) said, however,

> Traditional features of industrial age accounting would not disappear in information age accounting. They would be subsumed within a broader, integrated system for decision making and communicating — not just internally but with external stakeholders, such as customers and suppliers, who increasingly form a seamless web of enterprise with the corporation and whose input must be taken into account.
>
> Financial disclosure should move closer to the full measure of management information available inside the organization, and frequently extrapolated by investors today even when it isn't provided. [36]

SEC Commissioner Joseph Grundfest warned, "I think part of the problem that we face today is that we are trying to make financial disclosure through the EDGAR system appear to be a computerized version of the paper-based disclosure system that has been in place for the last fifty years. That is the same mistake the early producers made, when they said, all right, now we are going to make talkies using the same techniques we used for silent films. That strategy was wrong then, and it may also prove deficient here.... EDGAR allows you to do entirely different things and demands that you do entirely different things." [26]

Mednick described his view of information needs that could be met:

> Investors and others want and expect more: more predictive and value-based information; more of the whys — not simply whats — of financial data; and more early warning that a company is making poor decisions or may be nearing the brink of financial collapse.
>
> Two thirds of the respondents to a 1985 Lou Harris & Associates survey for the FASB agreed that 'qualitative information presented outside the financial statements,

> such as management observations, strategic plans and goals, market growth, etc., often can be more useful than quantitative measures included in the financial statements.'
>
> Performance measures such as market standing, customer satisfaction, product quality, cost and productivity and management and worker performance would clearly be an important element of this new information age accounting. [37]

The McFarlane Committee said, "auditors should report to shareholders on whether the company has acceptable financial and other relevant risk management controls commensurate with the nature, scale, and complexity of its business....There is likely to be increasing demand on auditors of all companies to report on the incidence or risk of irregular acts, and an acceptable response to this demand must be established by the auditing profession."

It believed that auditors should take on some role in warning shareholders or other stakeholders of substantial future risks. Those risks fall into two categories: that the company may not be able to sustain its core operations profitably or at all, and that management's style might facilitate imprudence or fraud. This suggests a progressively sharper audit focus on the management of financial risks. [15]

The AICPA Future Issues Committee also noted that many types of information, from firm-level information to global data are outside the financial statement area but are nonetheless increasingly relied on for investment, social policy, and other vital decisions. [9]

In a counterview, however, Richard Asebrook in a 1980 critique of a Douglas Carmichael paper urged caution. He said, "Even if information is auditable, this does not necessarily mean it should be audited.... The hammer theory refers to the propensity of a small child who has just been given a hammer to find that nearly everything needs hammering. Auditing standards setters should never be given license to use the hammer theory."

The ICA of Scotland viewed a slightly different role for auditors in the future. It recommended that auditors be renamed *assessors*. Its proposed assessor's report included assurances that the board of directors fulfilled its responsibilities and that the company's systems were sufficient to provide GAAP financial statements and minimize fraud and illegal acts. [32]

The AICPA stated in Congressional testimony that "Investors and creditors are responsible for assessing the risk of investing in or lending to a company. Accordingly, in making that judgment, they need to consider a wide range of information in addition to the historical financial information included in audited financial statements. The quality of management, developments in the industry, labor relations, marketing and product development plans, and the state of the economy are some of the factors that may be as relevant or even more relevant than historical financial statement information. As a result, investors and creditors can make bad judgments about a company and its future prospects even though the audit of the historical financial statements is without fault." [3]

Brown noted that the Canadian Institute of Chartered Accountants' Information Technology task force "merely expanded that role [of auditing financial information produced by computers] to include performance information, a decision recognizing performance data reporting as a growing phenomenon. Auditing that data should be a requirement in due course, one that will inevitably lead auditors into systems that are not purely financial." [17]

Some observers' vision of the future financial reporting centers on computer databases. In that regard, the SEC said, "This movement will produce dramatic changes in the roles of private standard setters, auditors, information providers and users. In addition, an entire new industry of information managers and vendors is likely to emerge.... When more detailed data are disclosed in the Commission's data base, numerous questions will arise. For example, what will happen to current auditing standards? Will auditors be asked to audit the raw data, the computer programs that process the data, the reports that private vendors offer to their customers or all three? What standards will be used to determine the level of extent of disaggregation? Who will establish these standards? What will be the impact on competition when details are disclosed?" [26]

In recommending assurance about environmental and societal matters, the ICA of Scotland said, "Without questioning the need for such an audit, it might be asked whether a company's financial auditors have appropriate qualifications and experience to provide it or whether it should be a separate exercise from the financial audit and be carried out by qualified experts in the area. In our opinion, it is unreasonable to expect financial auditors to make judgments on a company's attitude to environmental and societal matters." [32]

Reporting in Different Ways

One innovation, discussed for many years, is continuous reporting. The Cohen Commission said, "Relationships between the auditor and the company tend to be continuous. The trend in financial disclosure is also to a continuous flow of information. When annual financial statements were the primary source of financial information about a company, a once-a-year audit of the financial statements was adequate." [20]

However, it acknowledged some problems with the approach. Ernest Hicks noted, "We do not wish to have a responsibility that might extend to communications made without our knowledge. Thus, the method of reporting is important because the report must not lead users to misunderstand the auditor's responsibility or the quality of the information." [20]

The SEC addressed the issue of database reporting in saying, "The computer's ability to aggregate, disaggregate, and reaggregate data in a fast and efficient manner does not mean that users will only want detailed data.... Electronic technology simply permits users of data to perform alternative and multiple aggregations of their own choosing."

David L. Landsittel (Arthur Andersen & Co.) noted that "While in the future there will be opportunities for more disaggregated information to be presented, I think we should carefully note that it will in no way preempt the rules that we have today concerning summarized, aggregated information. Some of the issues that are the largest within our profession today deal with differences in presentation — that is differences in how we aggregate and classify information." [26]

Gerald Trites (Peat Marwick Thorne) argued that paper reports will still be important however.

> If information is continuously available on-line, say critics, why publish an annual report? The issue is not the publication of a paper document called the annual report, but whether there should be one at all — either paper or electronic. The need for confirmatory information seems to indicate that such a need will continue.
>
> Information technology reduces the emphasis on debits and credits and increases the emphasis on managing the flow of information about transactions, management initiatives and judgments, and economic events. [44]

Emerson suggested that auditors could provide actual insurance that statements are in conformity with GAAP. Under his system the auditor would provide absolute assurance instead of the reasonable assurance offered under GAAS.

> In the event of an alleged audit failure the parties agree to a review of the facts by an independent body to determine whether a business failure or audit failure has occurred.
>
> If an audit failure, the accounting firm is responsible for the cost of the review and to pay off the policy; if a business failure, the plaintiff is responsible.
>
> Under this level of opinion no longer would firms be performing steps just because they were required by GAAS. If the procedure did not substantially reduce the risk of the statements being materially misstated there would be no economic justification for performing it. [25]

Finally, Mednick reasoned that "As a first step along the road to the ideal, the profession will probably merely supplement the traditional opinion on management's assertions — for example, with an independent financial analysis of the entity and early warnings of potential problems, communicated in most cases to the stakeholders' representatives. In the long run, however, auditors will need to find new and better ways, including the use of leading-edge database technologies, to communicate directly and more completely with many kinds of stakeholders." [37]

More Responsibility for Data and Analysis

The Jenkins Committee noted:

> A majority of users support expanding auditor reporting to include some form of analytical commentary.

It is not clear whether users' interest was solely because they sought the auditors' viewpoints or because current business reporting, including MD&A, was not providing needed information which the auditor's comments might disclose.

The paper makes the following arguments:

The independent view of the auditor constitutes useful information in addition to the reasonable views of management.

It is important to establish the auditor's independent observations that best characterize the situation and not merely express auditor assurance that management has a reasonable basis for its reported views.

Whatever opinions the auditor develops as a result of procedures performed could provide more to users than they are currently receiving.

Auditor analysis may alleviate the perception of certainty surrounding financial statements by highlighting the judgments inherent in external reporting. [10]

The paper also presented some arguments against such an expansion citing difficulties in effecting the change and that it might not work well.

The Public Oversight Board suggested additional qualitative components of auditor reporting. Although such reports would be limited to the audit committee, the POB suggested that the auditor provide a judgment about the appropriateness, not just acceptability, of accounting principles and clarity of disclosure. It also suggested that the auditor communicate whether management's choices of accounting principles are conservative, moderate, or extreme and whether they are common practices or minority practices. [40]

The McFarlane Committee agreed with expanding the report. It said, "a single sentence 'yes or no' audit opinion cannot adequately convey the complexities involved in preparing financial statements and that there will be a growing need to better communicate the significant assumptions and vulnerabilities in the financial statements. It proposed that directors should provide, and auditors report on, a summary of the principal assumptions and judgments made by directors in preparing the financial statements."

Audit reports, it said, should "shift in style from a stereotyped opinion to a commentary on the substantive issues concerning the company's financial position and other matters within the scope of the audit.... One way in which this could be achieved is to require auditors to report in a discursive form, rather than in a set form of words." [15]

The Cohen Commission agreed. "Some investors feel that the auditor should not only express an opinion on the financial statements but should also interpret them in such a way that the investor can judge whether he should invest in the company." [20]

The Commission said that "if standardized alternative phrases or paragraphs are used that change with the circumstances, we believe that users will devote greater attention to the content of the auditor's report, but the benefits of standardized wording will be retained." [20]

Back in 1950, an article in the *Journal of Accountancy* railed against standardized reports. At the time, long-form reports for nonpublic companies were still common. The author said,

> More than most other professional men, accountants should write clear, concise, and complete reports for laymen. Although written on a technical subject, reports have to be in understandable form to the businessman, as well as to investors and credit men who are infinitely more experienced in technical knowledge and language than are most clients.
>
> Reports should not be stereotyped and made to cover clients in all types of business but should vary according to clients and types of business.

He went on to recommend the contents for a long-form report. [41]

Hooks and Westerfield implicitly argued that the contents of the report may not matter in the long run.

> 66% of the knowledgeable public indicated that they believe more flexibility would make the message of the audit report more meaningful, while 31% indicated just the opposite, that it would make the message more difficult to understand or that its impact would be lessened...the term 'flexibility' was not defined in the question. If the respondents do not know what an audit report is, they might not know in what respects it can be made more flexible.
>
> One concludes from this that almost 60% of the general public does not understand the purpose of an audit. [30]

Providing Information

Some argue that the auditor should provide information rather than just report on it. Mednick argued, "Ideally, a future auditor should be directly responsible to the stakeholders for all knowledge gained in an engagement they would find useful in their decision making." [37]

Richard J. Irons (University College of Central Queensland) stated, "The audit function should become one of investigating business fundamentals, rather than their accounting representation." He went on to recommend that auditing be removed from the ambit of accounting. It should be created as a separate and specialized forensic function based upon corporate financial behavior, rather than the representation of that behavior.

He also desired to ensure that auditors report to shareholders very frequently and make recommendations to them regarding incompetent and foolish management. [33]

The Economist believed that,

> The problem of how to make bosses accountable has been around ever since the public limited company was invented in the 19th century, for the first time separating the owners of firms from the managers who run them.
>
> In an ideal system, the boss would know what shareholders expected; and shareholders would have enough information to judge whether their expectations were being met — and the power to act decisively if they were not. [23]

The Cohen Commission rejected the notion that the auditor should provide information. After acknowledging that some users support it, the Commission concluded that "The auditor provides an objective evaluation of management's presentation of information. He should not become an originator or interpreter of information." [20]

Finally Mednick said that "Auditors can and should regularly provide an independent, critical financial analysis of the entity at least to the board of directors, as the representatives of shareholders and other stakeholder groups." [37]

Providing Advice

Some observers believe that the auditing function should be more concerned with providing advice to the companies they audit. Not surprisingly, these views often come from auditees.

Robert Walker (Ontario Pensions Board) reported that "In the U.S., research has been carried out among CFOs of Fortune 1000 companies to determine what they expect from an audit, and whether those expectations are being met. Respondents were consistent in stating that they expect value added from an audit but are not receiving it. They said they find it disturbing to see that audits generate so little strategic thinking." [46]

Then he said,

> The overriding objective would be to discover, and report on, as many issues as possible — anything that might be of assistance of [sic] the entity under audit, its management, and owners.
>
> The auditor would concentrate on providing high-level strategic advice on real business issues, such as which systems to develop that would contribute the most to the client's success.... The main product of the audit would be the management letter, not the inert words of the auditor's standard report. The real output would be the changes implemented as a result of the auditor's recommendations. A qualified audit report would be regarded as an audit failure — a failure on the auditor's part to generate the required change. Independence would be required to ensure that auditors press for change in the things that need changing. [46]

Providing Information Not Related to a Specific Company

A more dramatic change would involve the auditor as information provider. It is said that an old line railroad facing a declining industry reinvented itself when it determined that it wasn't in the railroad business but, rather, the transportation business. It then went on to explore transportation businesses that were expanding while railroading contracted. A similar change could be achieved by auditors.

Auditors could position themselves as the providers of information on any subject. As objective, intelligent professionals they could provide wide varieties of information and arbitrate in public debates. For example, they might be the ones to turn to when an environmental group claims that a project will be harmful and a company's statistics claim otherwise.

The profession's potential expansion has been noted by others. Recently, a facetious article in a law magazine speculated that the largest law firm in the world might soon be — Arthur Andersen.

Opportunities and Threats to Change

The AICPA Future Issues Committee identified the following opportunities and threats:

Opportunities:

- Enhancement of CPA knowledge of business and society
- New business
- Attracting idealistic young professionals into the profession.
- Reduction of liability exposure through improved standards and disclosure of the basis on which information has been reported.
- Improving the profession's image if non-financial statement attestation is increasingly viewed as a valuable service.
- Redefining and expanding the attest function.
- Demonstrating social responsibility and integrity
- Development of standards for information attestation, validation, disclosure, and display
- Capitalizing on CPAs' high reputation for credibility.

Threats:

- A more complex educational burden
- Increased liability exposure
- Greater security problems in protecting data
- Lost opportunity; if the profession doesn't provide this someone else will
- Increasing difficulty in maintaining quality as the variety of information increases
- Potential increased regulation
- Competition from a wider array of organizations. [9]

Annotated List of Resources Used

1. *Accounting Today*, Top 60 — 1993.
   Details auditing revenue for the 60 largest firms for the past five years.
2. *Accounting Today*; August 22, 1994.
   Juxtaposed four stories that might indicate trends.
3. AICPA, "On the Quality of Independent Audits;" testimony before the U.S. House of Representatives, 1985.
   Generally defends the auditing profession.
4. AICPA, *Strategic Thrusts for the Future (Second Edition)*, May 1991.
   Seeks to identify the driving forces that will affect the profession in the future and the initiatives that the AICPA should take to meet the challenges ahead.
5. AICPA, "Technical and Professional Notes;" *Journal of Accountancy*, November 1950.
   Suggests how little things have changed in almost half a century.
6. AICPA Auditing Standards Board, "Summary of Recommendations developed at the Auditing Standards Board's 1991 retreat;" January 14-15, 1991.
   Future trends affecting auditing standards in the 1990s.
7. AICPA Auditing Standards Division, *In Our Opinion...*; August 1994.
   ASB task forces of interest include Auditing Soft Information, Computer Auditing, and Environmental Issues.
8. AICPA Future Issues Committee, "Accountability Standards in the Private Sector;" issues paper dated December 9, 1989.
   Discusses the concept of accountability and the expansion of the attest function over new areas.
9. AICPA Future Issues Committee, "Issue Brief: Assuring Information Integrity;" January 17, 1990.
   Discusses the societal impact of increasing information availability and delivery.
10. AICPA Special Committee on Financial Reporting "Auditor Association with Business Reporting;" A chapter of the report, 1994.
    Discusses the auditor's role in the new financial reporting model. Concludes that the Special Committee on Assurance Services should study expanding audit reports to include analytical commentary.
11. AICPA Special Committee on Financial Reporting, Breakthrough Model Task Force, "Basic Elements of Accountability and Attestation," 1994.
    Defines accountability as a basis for elaboration and application to financial reporting. Also discusses the basic attestation model.
12. AICPA Special Committee on Financial Reporting (Jenkins Committee), *A Model of Business Reporting Responsive to the Information Needs of Investors and Creditors as Understood by the AICPA Special Committee on Financial Reporting*, 1993.
    A comprehensive model of business reporting by for-profit companies based on the needs of investors and creditors.
13. AICPA, *Report of the Special Committee on Small and Medium Sized Firms*, 1980.

Considers the future viability and prospects of small and medium sized firms. Contains specific recommendations, but generally positive on the ability of smaller practice units to compete.

14. AICPA, Special Committee of the AICPA to Study the Structure of the Auditing Standards Executive Committee (Oliphant Committee), *Report of the Special Committee of the AICPA to Study the Structure of the Auditing Standards Executive Committee*, 1978.
Makes specific recommendations about how the Auditing Standards Board should be run. Most are administrative with no ramifications for the standards themselves. However, quotes John Burton as saying, "In general, the standard-setting mechanism has not resulted in an innovative approach to the auditing function but has tended to enshrine or justify current practices."
15. The Auditing Practices Board of the Consultative Committee of Accountancy Bodies (the United Kingdom and Republic of Ireland), "The Future Development of Auditing: A Paper to Promote Public Debate" [McFarlane Committee report], November 1992.
Considers the future of the auditing function, much as the Committee proposes to do. Proposes a conceptual redefinition of auditing to include reporting on the company's affairs, its financial performance and condition, and future risks. Focuses on audits of large companies.
16. Ray Ball, "The Firm as a Specialist Contracting Intermediary: Application to Accounting and Auditing;" unpublished paper, April 1989.
Explores the justification in economics theory for many basic accounting concepts.
17. Donald A. Brown, "So Far, So Good;" *CA Magazine*, April, 1992.
Reviews the recommendations of the 1990 CICA information technology task force. In general, calls for CAs to be more active and involved in computer issues — to be at the forefront of the revolution.
18. Barry Brownlow, "Business Renewal For CAs and Their Customers;" a teleconference, February 21, 1994.
Discusses changes in business and the resulting changes accountants should make to accommodate client needs and continue to prosper. Focuses largely on consulting services that accountants can provide to their clients and TQM-type concepts.
19. CICA, "IT Report Envisages New Role for CAs;" *CA Magazine*, August, 1990.
News item on the CICA Information Technology Task Force report.
20. *Commission on Auditors' Responsibilities* (Cohen Commission): *Report, Conclusions, and Recommendations*, AICPA, 1978.
Makes a number of recommendations on the appropriate auditor's role in financial reporting.
21. Datar, Feltham, and Hughes, "The role of audits and audit quality in valuing new issues;" *Journal of Accounting and Economics*, vol. 14, 1991.
Considers whether the audit report has any intrinsic value or is considered valuable only as a signal.
22. Dowdy and Nikolchev, "Can Industries De-Mature? — Applying New Technologies to Mature Industries;" *Long Range Planning*, Vol. 19, no. 2, 1986.

Discusses mature products and industries. It can be argued that the audit is a mature product and needs to be renewed or it will decline.

23. *The Economist*, "A Survey of Corporate Governance;" January 29, 1994.
Analyzes the accountability and pressures on corporations in the U.S., U.K., Germany, and Japan. Discusses issues of takeovers and who exerts the real pressure on management to perform.
24. Robert K. Elliott, "The Third Wave Breaks on the Shores of Accounting," *Accounting Horizons*; June 1992.
Discusses a new post-industrial paradigm of wealth creation that changes the way business is done. Discusses the effects of information technology on business and internal accounting, external accounting, public accounting firms, accounting education and accounting research.
25. James Emerson, "Tackling Accountants' Liability: A Glimpse Into the Future," An Emerson Report, February, 1991.
Discusses the accounting profession's legal liability problems and suggests solutions. The solutions cover three general areas: changing CPA firms' form of practice to place less assets at risk and make firms a less inviting target of lawsuits; improving communications with users, specifically in relation to disclosure of risks, to reduce the expectation gap; and offering insurance as part of the audit report, where the auditor would be contractually obligated to reimburse financial statement users who contract with him for actual damages resulting from audit failures but immunized from liability when losses result from business failures.
26. FEI and U.S.C., *The Impact of Electronic Technology at the SEC*; 1987.
Considers the possible effects of EDGAR on financial reporting.
27. John S. Fisher, "The New Finance;" *Journal of Accountancy*, August 1994.
Probes the future of corporate accounting and finance. Argues that new technology is challenging the accounting profession to redefine itself.
28. Ray J. Groves, "Here's the Annual Report. Got a Few Hours?;" *Wall Street Journal*, August 4, 1994.
Argues for a reduction of clutter in annual reports.
29. Hatherly, Innes, and Brown, "The Expanded Audit Report — An Empirical Investigation;" *Accounting and Business Research*, Autumn, 1991.
Explores the possibility of expanding the standard U.K. audit report to more closely mirror SAS No. 58, *Reports on Audited Financial Statements*. Surveyed two groups of part-time MBA students to determine if the expanded report affected their perceptions of financial reporting.
30. Hooks and Westerfield, "Should Public Opinion Affect Auditing Standards?;" *Woman CPA*, Summer 1990.
Summarizes research done for the Macdonald Commission in Canada by Decima Research. Overall, the public — even that segment considered knowledgeable — has a relatively poor understanding of the auditor's function.
31. The Institute of Chartered Accountants in England and Wales, *The Audit Expectations Gap in the United Kingdom*; 1992.
Considers the expectation gap in the U.K. though historical analysis, interviews, and surveys. Concludes that the expectation gap is not a new phenomenon. Offers three

major recommendations: an independent regulatory agency should be established to oversee the appointment of auditors and fees, auditors should be liable to persons beside existing shareholders (although proportionate liability is a prerequisite to this idea), and auditors should accept increased responsibility for fraud detection.

32. The Institute of Chartered Accountants of Scotland, *Auditing into the Twenty-First Century*; 1993.
Addresses narrowing the expectations gap in Scotland. Based, in part, on two research reports: the Cadbury Report on the financial aspects of corporate governance and the Auditing Practices Board paper on the future development of auditing.
33. Richard J. Irons, "Auditing for Economic Well Being: A Change from the Traditional Role;" unpublished paper, December 1990.
The author believes that the accounting and auditing function serves to obscure rather than elucidate.
34. King, Lewis, and Abendschein, "Microcomputers and their Effect on Auditing;" *Woman CPA*, Winter 1990.
Summarizes the effect of microcomputers — both the client's and the auditor's — on the audit.
35. William Kinney, "Audit Litigation Research: Professional Help is Needed;" *Accounting Horizons*, June 1994.
Asserts that academicians and professionals can help each other. Academics should do more research into the social costs and benefits of the current tort system as it affects accountants. Accountants might benefit by receiving objective evidence to support their pleas for liability reform.
36. Richard Measelle, "Information Age Accounting;" *CFO Magazine*, May, 1994.
Argues that accounting methods need to catch up with the modern corporation.
37. Robert Mednick, "Reinventing the Audit;" *Journal of Accountancy*, August 1991.
Argues that the accounting profession needs a process for completely reengineering the audit function and regaining the public's confidence.
38. Murnighan and Bazerman, "A Perspective on Negotiation Research in Accounting and Auditing;" *The Accounting Review*, July, 1990.
Reviews the research done on negotiation. Says that, in the long run, it is in an entity's best interest to disclose financial information that it might otherwise hold secret.
39. Brenda Porter, "An Empirical Study of the Audit Expectation-Performance Gap;" *Accounting and Business Research*, Winter, 1993.
Studies the components of the expectation gap — the unreasonable expectations of users, the deficiency in standards to meet users' reasonable expectations, and the failure of auditors to meet the requirements of standards — by surveying auditors, informed users, and the general public in New Zealand.
40. Public Oversight Board, "Strengthening the Professionalism of the Independent Auditor," Report to the Public Oversight Board of the SEC Practice Section from the Advisory Panel on Auditor Independence, September 13, 1994.
Responds to criticisms of the profession made by the SEC Chief Accountant. Makes recommendations intended to bring auditing into the mainstream of corporate governance and to restore auditing to its important role in our society. Recommends no additional rules but stresses the uniqueness of auditing and the need for auditors to com-

municate with boards of directors and to expand the range of communications to include appropriateness of accounting principles used, the clarity of disclosures, and the degree of the company's aggressiveness in selecting accounting principles and formulating estimates.

41. Frank V. Russell, "Accounting Firms Can Write Better Long-Form Audit Reports;" *Journal of Accountancy*, November, 1950.
    Suggests what long-form reports (which were then common for non-SEC companies) should say.
42. Sylvia Smith, "A Matter of Evidence;" *CA Magazine*, October 1994.
    Considers the significance of soft information and the challenges in auditing it.
43. James Sylph, "Apocalypse No!;" *CA Magazine*, January, 1992.
    Predicts the future of the CA profession 25-35 years down the road.
44. Gerald Trites, "Read it in the annual report;" *CA Magazine*, December 1990.
    Discusses the role of the annual report in the age of greater information availability. Draws on some of conclusions of the Macdonald Commission.
45. U.S. Senate Subcommittee on Reports, Accounting, and Management [Metcalf Committee], *The Accounting Establishment*; December 7, 1976 (Summary).
    Recommends that the federal government take over all standard-setting, peer review, and enforcement functions and increase auditor legal liability.
46. Robert Walker, "In Search of Relevance;" *CA Magazine*, February, 1993.
    Argues that audits should be more active in meeting stakeholders' expectations. Focuses primarily on the needs of the company, rather than creditors or other users of financial information.

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Executive Summary

Background

CPA firm revenues for accounting and auditing services are, at best, stagnant, making this sector less attractive than it used to be. The AICPA Special Committee on Assurance Services, as part of its mission to explore new assurance services, determined it needed to better understand the nature of client needs and relationships that lend themselves to the delivery of enhanced services.

To this end, qualitative research was conducted with partners in firms already delivering enhanced services and with their clients. This information is sought to help members identify likely prospects for enhanced services and to help them operationalize the characteristics of a CPA/firm that is successfully delivering enhanced services.

Objectives

The objectives of this study are:

- To identify the characteristics of clients who receive enhanced services beyond traditional accounting services;
- To identify characteristics and behaviors of CPA firms/partners who provide enhanced services to clients; and
- To distill these characteristics down to the critical success factors for a CPA/firm seeking to provide enhanced services.

Methodology

The AICPA identified three small to mid-sized CPA firms who deliver enhanced services: one in Gainesville, FL; one in Albuquerque, NM; and one in Seattle, WA. The firm in Gainesville has 2 offices in Florida, while the Albuquerque firm has one office. The firm in Seattle is the largest of the three, a regional firm with a total of 17 offices in 3 states. Three focus groups were conducted with clients of those firms, one group per firm, during May of 1996. The CPA firms were responsible for recruiting the appropriate client contact person to participate in the focus groups. In addition, nine individual interviews were conducted with CPA partners who provide enhanced services (three partners from each of the firms whose clients participated in the focus groups). A tenth interview was conducted with an employee of one of the firms, a salesperson whose job it is to develop business prospects.

Ms. Ellen Good, President of Focus First, Inc., moderated the groups and conducted the interviews.

Statement of Limitation

Qualitative research through focus groups and individual interviews provide a rich source of in-depth information. Although the participants in this research were drawn from the populations from whom we seek answers, they were not drawn on any statistical basis. Therefore, no statistical inferences should be drawn from this research. The findings can best be used for marketing and research guidance.

It must also be noted that few women were represented in this study. (None of the partners are women, and only two clients in the focus groups are women.) Since women clients and partners might offer a different perspective than men, we cannot be certain that the findings in this research will apply equally to women. Since women are representing an increasing proportion of CPAs, partners, and clients, additional research should be considered to determine if differences exist between male and female perspectives on this topic.

Conclusions

- The CPA firms represented in this research are small to middle market; the clients represent small to mid-sized businesses. Thus, findings should be interpreted in that context.

- The enhanced services provided by the CPA firms in this research are tremendous in their variety and scope. Examples are: general business advice, strategic planning, continuity/succession planning, advisor to the Board of Directors, coaching, general mentoring, team building, litigation, mediation and arbitration, performing the function of a CFO or controller, compensation/benefit package development and implementation, staff screening and hiring, expansion/acquisition/merger consultation, capital infusion planning, negotiating sales of businesses, automation and computer planning, and as a referral source for networking help with just about any business need.

- The partners and clients identify characteristics of the type of CPA firm most likely to provide enhanced services to small to medium-sized businesses. These are:

    * Recognizes that enhanced services that help clients help solve their problems are the "wave of the future" to maintain profitability levels.

    * An organizational culture which encourages all staff, not just the partners, to develop strong client relationships, while at the same time finding a place for those CPAs who only want to offer standard services.

    * Ability to provide partner-level involvement.

    * Large enough to have developed expertise and/or a referral network in a number of enhanced areas.

    * Pays close attention to "chemistry" when matching client and partner-in-charge.

* Offers only those enhanced services in which there is true expertise or for which qualified resources can be located.

* Continues to provide high quality standard accounting services.

• Clients who receive enhanced services and CPA partners who deliver those services generally agree on what it takes to develop these types of relationships. The following chart identifies both the CPA and the client characteristics that lead to the delivery of enhanced services.

Characteristics of Clients	**Characteristics of CPAs**
Wants enhanced services	Wants to provide enhanced services
Values what the CPA firm provides	Knows the client & client's business very well
Allows access to key decision makers and information	Has client's best interest at heart
Wants to grow the business	Demonstrates genuine caring
Business is currently profitable	Accessible, but not just during business hours
Is willing to change, do things differently	Is honest and trustworthy, has integrity
Is receptive to new ideas, open minded	Follows through, does what it takes to get the job done and what he says he will do
Asks questions	Covers the details
Thinks ahead	Has good judgment
Has a broad perspective	Is experienced
Is honest, fair	Offers innovative, creative solutions
Is vibrant, exciting, upbeat	Is a business generalist, not "just a CPA"
Is innovative	Has a broad perspective
Is fun to work with	Has an excellent referral network
	Knows his limitations, seeks outside help when necessary
	Is a risk-taker and is comfortable with uncertainty
	Has excellent interpersonal skills, is a superior listener

	Is extroverted, confident, enthusiastic

- Conversely, clients and CPAs can demonstrate characteristics that make it unlikely for an enhanced-service relationship to evolve.

  * Clients who are unappreciative and frequently complain about their bills; who only want the most basic of accounting services, want them done as quickly as possible, and base CPA firm selection decisions solely on price; who are not forthright with information; who are complacent, risk-aversive, not open to new ideas, and don't want to change; who have a narrow, short-term, non-strategic focus; and who can be negative, argumentative, paranoid, or even hostile are clearly not the best choices when it comes to providing enhanced services.

  * CPAs who don't take the time to understand their client and his/her business other than in a narrow way, are sloppy about details and don't think things through, are unenthusiastic with a tendency to dismiss ideas before hearing them out, who don't follow through on commitments, and who offer only "textbook" or packaged solutions without much creativity or customization are *not* the type of professional clients want in an advisory relationship.

- The opportunity to provide an enhanced service frequently begins with the client already receiving standard services. This is not a prerequisite, however. In this research, instances are cited where clients have been referred to a particular CPA firm because of a particular specialty.

- Sometimes clients initiate the request for enhanced services. Sometimes the CPA offers the service before the client has requested it. Either way is perfectly legitimate, although the more proactive the CPA is in recognizing the opportunity and suggesting the service, the more likely it is that enhanced service relationships will become the *modus operandi.*

- When clients are satisfied with their enhanced service relationships, they are extremely loyal to their CPA firms. They speak very highly about both the help they have received and the people who provide it. They fully believe that CPAs, by virtue of their professional experience and knowledge of their and other businesses, are perfectly positioned to provide all sorts of meaningful services above and beyond the standard ones.

- When clients are not totally satisfied with their enhanced service relationships, it is usually because:

  * They feel their CPA is not proactive enough in identifying needs, offering suggestions, recognizing opportunities, and communicating his own and the firm's capabilities.

* They feel the partner-in-charge is not spending enough time with them and the assigned junior staff doesn't have the experience or perspective to be able to recognize or pursue opportunities for providing enhanced services, which may be very much wanted and very helpful to the client.

- It bears noting that many of the CPA characteristics associated with providing enhanced services are the opposite of characteristics the partners associate with the "typical" CPA. Typical CPAs are described as "detail-oriented", "technicians", "perfectionists", "afraid to make a mistake", "bashful", "introverted", and "obsessed with rules". Both the clients in this research and the partners believe that considerable training is needed to help CPAs individually and as firms develop enhanced service relationships. Specific training-related suggestions appear in the Recommendations section.

- Similarly, the clients suggest and the partners recognize that CPAs individually and as firms need to market their enhanced service capabilities more effectively. Suggestions in this area can also be found in the Recommendations section.

- Reimbursement on a flat fee or per project basis, rather than the customary hourly billing, may be a more effective billing method for enhanced service. "Clock watching" by either CPA or client can be a hindrance to the development of meaningful relationships.

Recommendations

- Always look for ways to make clients aware of the enhanced accounting services provided by the CPA firm. For example,

  * Consider meeting on a regular basis with selected clients for the purpose of account review. Management letters with recommendations and advice should also be provided, along with an offer to help implement the needed changes.

  * Consider offering some advice or a small service *gratis* as a way to demonstrate genuine caring in the relationship. (It is fine to show the time spent, with no charge, on invoices to clients so they are aware of the investment being made in the relationship.) Clients who receive true value-added services are quite willing to pay for them, so any cost of providing *gratis* services in the interest of relationship-building can be more than made up for during the course of the relationship.

  * Monitor the effectiveness of the relationships with quality assurance interviews. Consider in-person or telephone interviews with clients that can provide more detailed information than brief check-list type surveys. The interviews could be conducted by someone completely unconnected to the firm, or by a senior-level firm employee not involved with the relationship being monitored. An effective quality assurance interview could at the same time be used to identify unmet client needs and opportunities for providing enhanced services.

  * Offer industry-specific information and services, such as identification of the success/fail factors in a particular industry. This might be done in the form of a seminar for all clients in a particular industry.

  * Encourage CPAs to get out of the office. Consider spending time at a client's business in a non-accounting capacity, such as going to meetings with the president, to discover where the needs and opportunities are.

  * Consider preferred customer treatment programs for those clients who are receiving lots of enhanced services and paying top dollar for them.

  * Respond quickly to any relationship problems when they surface. Be prepared to switch partners and/or staff when the "chemistry" isn't working.

  * Develop separate checklists that help accountants identify opportunities to provide enhanced services to clients. These checklists could be used when regular audit and tax services are being performed.

- Consider charging for enhanced services on a flat-fee or project basis rather than a per-hour basis. Identify the cost parameters up front, before the work begins.

- Develop a firm-wide orientation to marketing and fostering strong relationships while at the same time delivering high quality standard services.

  * Communicate to all employees, from the receptionists who answer the phones to the managing partner and everyone in-between that they have a responsibility to help market enhanced services. This begins by making all employees aware of the services offered by the firm and its partners.

  * Pay attention to how the firm rewards employees who work at developing enhanced relationships versus those who are more comfortable in traditional service roles. Develop career paths for both types.

  * Consider work load and timing factors when assigning CPA teams. (It is quite possible that *lighter* work loads might lead to increased sales of enhanced services.) Be realistic about how much time a CPA who is under tax season pressure can devote to relationship building. Develop a system for capturing and following up on opportunities identified during audits and tax preparation.

  * Investigate training experiences that help the firm as a whole deal with these issues. Training that demystifies selling and relationship building would be highly beneficial.

- Consider mandating that new business proposals be written only after a needs assessment interview with the potential client has been conducted. An effective needs assessment interview is one where the prospective client is helped to verbalize what his true needs/problems are and what the implications of not fixing those problems are to him and to his business. A particularly potent question to ask during this interview is: "What problems keep you awake at night?"

- Don't pass the firm off as an expert in an enhanced service area unless a true expertise or mechanism for obtaining that expertise exists.

- Investigate training experiences that help CPAs understand their clients' needs better and obtain more of a "real world" perspective. CPAs should be encouraged to think of themselves as business generalists, and to put themselves in the shoes of the business owner. Suggested topics for this area of training include: developing business plans, strategic thinking, setting goals, succession management, life cycle stages of businesses, and business owner survival skills.

- Investigate training experiences that help CPAs develop and practice the "people" skills necessary to foster enhanced service relationships. Help them recognize that business development in the area of enhanced services is really about developing relationships with people. Suggested topics for this area of training include: leadership, consulting, interviewing, coaching, presentation skills, selling, general communication and interpersonal skills.

- Encourage experiences that help CPAs become experts and develop well-placed contacts in specific industries or types of services. Networking with bankers and attorneys as well as joining industry associations is recommended.

- Partners who are experienced and comfortable with relationship building should be teamed up with CPAs who are less experienced to provide mentoring and modeling. Conduct "coaching" sessions before client visits and debriefing sessions after client visits.

- Make sure *everyone* in the firm is aware of the firm's capabilities in enhanced services. Roundtable discussions led by the firm's enhanced service providers are one vehicle to increase awareness. During these discussions, focus on helping CPAs be alert to client cues and ask the right questions of their clients to see if there is a need for enhanced services.

- Consider contracting the services of a training or organizational development specialist to conduct a training needs assessment of the firm, devise and implement a training plan.

- Consider having a sales and/or marketing person on staff whose job it is to help employees develop relationship-building and sales skills.

- Some specific suggestions to increase awareness and trial of enhanced services among clients and prospective clients are:

* Invite current and, where appropriate, prospective clients to an open house to introduce the firm's key players and services.

* Develop and circulate a brochure describing the firm's capabilities.

* Consider using advertising media, such as radio, newspaper, Yellow Pages, and web sites on the Internet.

* Before providing the enhanced service, promise a money-back guarantee if the client feels he has not received value from the service.

* Give talks and speeches at events potential clients or potential referral sources are likely to attend, such as industry conferences and Rotary luncheons.

* Offer seminars to clients and the business community on relevant business issues. These might be developed for and targeted to clients and prospective clients in specific industries.

* Conduct research among current and prospective clients, both satisfied and less satisfied. Consider regular focus group discussions as a vehicle to discover ways to improve current services and generate ideas for new services. Offer meaningful incentives for participation, such as restaurant gift certificates.

Detailed Findings: The Client's Perspective

Description of Participants

- The 23 participants in the client groups represent a range of business types, such as: insurance, construction, office supplies, law firms, dental offices, software development, medical technology, automobile parts, supply and leasing, securities, publishing, mechanical engineering, food manufacturing, ski resort, and holding companies.

- Most of the companies represented are privately and closely held.

- There is a mix of local and regional companies.

- They tend to be small to mid-sized firms (roughly one third under 25 employees, one third 50 to 75 employees, one third over 100 employees).

- Slightly more than half have been in business for over 30 years; 3 are less than 5 years old; the rest are somewhere in-between.

- The participants represent the highest level of management in their firms, holding such titles as president, chief operating officer, or chief financial officer.

- Nearly all the participants are men (21 out of 23).

Characteristics of Personal and Business Advisors

Methodological Note. To help participants delve into the topic of personal/business advisor relationships, they were asked to identify people who have been advisors to them (not including their current CPA firm) and to locate them on a "bulls eye" target according to how close they have come to the ideal.

The "Ideal" Personal And Business Advisor

- The "bulls eye" exercise identified a number of different relationships where trusted personal and business advice is given. Examples are family members (particularly fathers and spouses), bankers, professors/teachers, athletic coaches, attorneys, financial advisors, physicians, insurance salespeople, industry associates, and even business competitors.

- The best advisors share the following characteristics:

  * Really knows me and/or my business.

  * Has my best interests at heart and demonstrates genuine caring by being willing to spend time with me, really listening, being accessible at times other than normal business hours and following through to see how things went.

* Perceived as truly honest with impeccable integrity; trustworthy.

* Has broad perspective, not myopic, considers all sides of a situation.

* Perceived as having tremendous judgment.

* Perceived as having been through a similar situation or type of challenge, or helped others through a similar situation.

- The best advisors are clearly perceived as competent and knowledgeable; however, they are not expected to know all the answers. *It is more important that they identify the problem and then locate the right resource if they cannot provide the necessary help themselves.* This is a major reason why help from trusted advisors is sought on a broad range of topics, not just the one the advisor is perceived as being particularly knowledgeable about.

  "The closer I can get to the bull's eye, the more likely I am to ask questions that might be outside of their immediate expertise."

  "If it was out of their particular expertise, I might rely on their judgment for referring me to an expert in that area."

- When this type of relationship exists, participants feel they can be totally open and honest, that they don't have to hide any of their own weaknesses.

- They also experience a tremendous sense of relief. They feel that they are not alone, as if they have a partner who's sharing the burden with them, whatever they or their business are facing.

- The following quotes illustrate the kinds of advisory relationships participants describe as close to ideal.

  "Our banker is taking an interest in the business, an active role in what we need, going beyond to make deals happen, getting the president involved in our company, and creating those situations. It's really becoming an involved team player and not just 'call me when you want to raise your line of credit.'"

  "I have two people I think of who serve the business and me personally, that I think of more in a broad range that I can bounce ideas off of...to get an overall view of...the direction we need to be heading, more of a strategic advisor."

  "It seems to me that the person real close to the ideal has not much to do at all with their level of expertise, because by definition, the people who know something about what we don't know, we would be going to to begin with. The measure to success is not in what the accounting firm or the attorney or whatever in general practice knows about their profession, but it's what they know about you that counts. It's not what they know about *their* business, it's what they know about you and how that business applies to your situation."

"I put my dad in the center. He knows me intimately. He's extremely knowledgeable in business, honest to a fault.... But he had my best interest at heart."

"They don't view me as a profit center.... And loyalty, I guess it comes back to that. But more, it's that you're not being hustled, you're not being promoted, you're not doing things that aren't necessary. And you see that in terms of when you deal with others, that their professionalism doesn't take the easy cases. They step in on tough cases, and they're real dedicated. They would do things that were in your best interest, not necessarily just what you think you might want."

"He was a guy who just had tremendous judgment and a lot of humanity...and a very acute sense about what was right and wrong.... What you want is somebody who is centered and who is going to think about all sides of a problem and they're not going to approach it from a myopic view or from the view of a square they're sitting inside of."

"The legitimate feeling that they want to help me with this."

"I always walk away...saying...that's going to be handled right. I walk away feeling like I left part of the burden there and it's going to be okay."

"They know you've had a big meeting and they call you the next day and [ask] 'how did your meeting go?' They have a true, genuine interest."

"When they went to the extra trouble...you know they're serious and that they have your interests at heart and that makes it a lot easier for you."

"[Someone who says] I think I recognize the problem, but I'm not the person; let me tell you someone who is...they have enough concern about you to tell you where to go to get the best help."

"People who share some of the same issues...have been or are in a similar responsibility."

"Everybody is facing the same challenges and problems in running a business or...working in an organization...and [it] lets you know that other people are facing some of the same problems and you're not alone."

"Someone who is willing to be honest with you."

"What we're interested in is a lot of integrity in that person."

"I find that I can expose myself to those people in the middle. I can expose my weaknesses.... I don't have to put on a show. I can really, really screw up and those are the same people who are going to help me recover from it.... There's a tremendous amount of value in that."

- For some participants, having to pay for the relationship takes it out of the realm of the "ideal". An excellent and truly helpful relationship can exist, but when money is involved, it is not a "pure" one. This underscores the importance of the occasional gratis time or advice, as it may serve to elevate the relationship and assure the client of your personal, as well as professional, interest in them.

  "If I have to pay somebody, chances are they're not going to be in the middle. The best counsel I get is from people I don't have to pay because I can trust them, they don't have an agenda.... I have a great relationship with bankers, I love bankers. But you do have to pay them and there is always a bit of an agenda."

  "There's a purity to not having any economics involved.... [When] there's an element of selling going on...you have to keep your guard up."

Advisory Relationships That Fall Short

- Participants become disappointed in advisors who:

  * Don't understand them and/or their business. A symptom of this situation is when the advice offered is considered unhelpful or even "bad".

  * Don't make the effort or take the time to learn their businesses other than in a superficial way.

  * Are sloppy about details and don't think things through.

  * Are unenthusiastic with a tendency to dismiss ideas before hearing them out.

  * Don't follow-through on commitments.

  * Offer only "standard" or "packaged" solutions without any creativity or customization to their needs.

- The following quotes illustrate how participants feel about advisory relationships that soured or never really blossomed:

  "So often someone can come in...and they make some changes...without understanding the whole business and how you operate and what you're doing. That can be a very costly thing.... It was just...somebody not understanding the business that we were in."

"I would come up with these...ideas about how we should save money...and he would always say 'you can't do that', 'you can't do that'.... Nothing turns me off worse than saying 'you can't do that'.... You need to say why we can't do this...what the consequences are if you do it."

"I have just never felt in the 2 years that I've been dealing with them that they're really that interested in me, in my growth. I seem to be churned...I keep getting a lot of advice that I have not taken."

"They didn't know my business, didn't try to learn it, and they saw their task as somehow separate from operating the business.... They weren't much help."

"Did a very shoddy job, very poor attention to detail, poor expertise, poor service and ultimately some very bad advice.... We were just numbers to them, that's all it was."

"Not really willing to dig into our business and our complexity."

"We've got an estate planner, an attorney, who really doesn't dig into the best avenue, I feel, for our family and the way we want to go. They are very knowledgeable, lots of basic plans. They have straightforward, packaged ideas,...but nothing really out of the ordinary or no real creative thought behind it."

"Most of them are interested in selling...and they do not want to follow up and do things that need to be done."

"Trying to offer advice on how to run a business without understanding the business, and they were difficult to deal with because they wouldn't learn the business. They didn't take the time to learn what it was about."

"The one that's far out I felt was not in tune with the business and more interested in conversation than content."

"Not following through on their word, not doing what they say they're going to do."

"When you say trusted, competent, they're not on the chart. I don't even remember a lot of the names. They were contractors who have done bad jobs. Basically, the kind of things that people didn't perform that you paid them to do or you asked them to do, or they didn't demonstrate loyalty, didn't demonstrate the kind of things that you trusted them to do it again, so I think we probably have a lot of those experiences."

"I just have a hard time spending my time with these individuals trying to listen to what they have to say and [feeling] that I can trust them and give them information on our business that I feel is very confidential. I just think they're trying to sell me products and services that I already know about, I already know how they work, but I need to know much more. I need them to dig into our business or try to figure out where we want to go, what we want to do, have some sincerity about what they're doing."

"There are some people that I have trust in, in their technical knowledge, other people, trust in their personal approach to life. There are some people that may not know your business, but you can go to them and they can help you make a decision concerning letting an employee go, just general good sense things without knowing your business. Then other people that you wouldn't go to them for that, but you would go to them and speak to them about a technical problem and walk away satisfied. When you're saying ideal, I was trying to find somebody who did both, and there is probably not any individual that has really been able to do it all, that I can look to and when I have a problem, turn to."

Critical Success Factors in Ideal Advisory Relationships

- Trust is critical to the success of these relationships.

  "The basketball coach was a friend of my parents. My contact with that individual had to do with his coaching basketball. When everything was said and done, I think I learned more from him about everything from soup to nuts to financial planning and what have you, as a college student, and that was not my intent whatsoever when I met him and it wasn't my intent when I talked to him, but that's what it's become. We've had a very close relationship as a result of that. I think probably it was a little bit of him getting to know me and maybe me reaching a little bit towards him.... I think he was truly in it to help the people who played for him.... And I think it was just people opening up a little bit, and I trusted him. I told him a lot of things that I sure as heck wouldn't have told my parents. He probably told them and they chuckled behind my back, but at the time I didn't think about that, but I had to tell somebody."

- For the advisory relationship to work, it is absolutely critical that both parties "click" on a personal level. "Chemistry" is the word many participants use to refer to this phenomenon. When it's "good", both parties feel comfortable, are more likely to be truly honest, and more likely to trust each other.

  "If there isn't a clicking there on a personal level; I don't seek advice from anyone I can't relate to in some fashion."

  "There is always the chemistry and if the chemistry isn't there, I think you have more difficulty relying on their expertise.... [If the chemistry is not there] you're probably not as open...showing all your faults to that person."

  "I think the chemistry has to make sense. You can be working with the greatest firm in the world, but if the chemistry in the people doesn't fit your culture, it's not going to work. It's not going to develop into this."

"They can be technically competent but if you don't feel comfortable in dealing with them, you won't do that."

"The comfortableness of working with an individual. You just feel if the chemistry is better, I think the communication is improved, so ultimately I guess my feeling is the odds of my getting...[good] advice should be higher because I've seen that the comfort comes faster."

"I think style is important. If your styles clash, it could mean difficulties."

- Time and proof are other critical factors. The best advisory relationships usually take time to develop, and for advisor to prove him/herself. Trust and confidence in the advisor grow based on successful experiences over time.

"That takes time. That's not something you can build over one or two years; it goes back for a long time."

"I don't think it has to be a lot of time, but I do think it takes several years. I don't think it's anything that happens within one year. I think everybody has to sort of prove themselves in the relationship and what they can bring to the table in order to establish that relationship."

"Time. You don't start that first year you're in business and you don't have it the second year you're in business, and maybe you don't have it for I don't know how many years. I've been in business 28 years and the relationships I've developed very, very slowly and you develop that trust and loyalty.... To me, it's time and trust."

"It's easier with time, there's no question about it.... You get more examples of success in a relationship over time."

"For me, it's integrity, trust, and it takes time."

- Displaying genuine concern, especially during an intense, crisis situation can sometimes shorten the time it takes for the relationship to solidify.

"If they show genuine concern, you can establish that bond pretty fast."

"Depending upon the intensity of the situation that you need that person, you can develop a bond with them pretty quick."

Relationships With CPAs

Images of CPAs

- Participants in this research tend to think of CPAs in general as educated, knowledgeable, competent professionals.

"I think of someone who is educated and knowledgeable, professional.... a person...who has been with numbers all his life. When I think of a CPA, I think of someone with a lot of professional training."

"By and large they're very competent in terms of at least the base qualifications."

"Technical competence."

- The "typical" CPA is described as a numbers-oriented "bean counter" whose job is to do audits and taxes. The "typical" CPA is seen as technically competent, but without much vision.

"It's the guy in the movie who was the bean counter,...and his job was to say no to everything."

"Audits just seem to jump right out."

"The first thing I thought of was audit."

"Audit and tax."

- Many participants acknowledge that this image is changing. To them, a CPA is or can be more than an accountant; he or she can be a business partner offering not only accounting services but all sorts of advice.

"It used to be fear when they did the audit.... I think that's changed in the current business environment...from fear to a partnership."

"Taxes and other things are very important, but we've also used our CPA firm for advice on decisions we're making."

"I don't think of them doing that, but I think it's certainly something they could do. I think they could hold themselves out because they have that wealth of information about the business already...they already know the business and they know the players."

"I see it as a business that has tremendous opportunity to add a lot of value...you have this opportunity for this firm that knows you intimately...they see you day in and day out. If they want to, [they could] add some value."

Enhanced Services Provided By The Current CPA Firm

- Participants who feel they receive enhanced services from their CPA firms identify a number of ways they have been helped by their CPA firms; among them:
    * Objective viewpoint from someone who knows the business but is outside it.

* As a sounding board to discuss decisions.

* Human resource situations (for example, writing job descriptions, staff leasing, dealing with the Disabilities Act).

* Compensation/benefit package development and implementation.

* Performing the function of a CFO or controller.

* Strategic planning.

* Continuity/succession planning.

* Automation and computer planning.

* Expansion, acquisition, and merger decisions.

* Referral source.

* Attend Board of Directors meetings as an advisor.

* "Coaching" for presentations to Board of Directors, potential lenders, etc.

* General "mentoring".

How Enhanced Relationships Evolve

- In almost every case, participants started out just receiving standard services from their CPA firm before receiving enhanced services.

- Most don't recall that there was any sort of plan on either their part or the CPA's part to move the relationship toward the provision of enhanced services. Rather, they see their relationships as an outgrowth of a gradual process progressing something like this:

  * The nature of the CPA's standard services give him the opportunity to get to know the business and the key players in it.

  * If there is "good chemistry", and if the CPA is willing to invest the time to really get to know the organization and its industry, situations arise where either the client asks for some sort of advice or the CPA becomes aware of a need or situation and offers advice.

  * If the advice proves effective, more and more situations occur where advice is sought and advice is offered.

- The more characteristics of the "ideal" advisor that the CPA displays (i.e. demonstrates genuine caring, really listening, being accessible, having a broad perspective, having good judgment, having experience in the situation, etc.), the more likely it is that the relationship will flourish.

- Often there is an informal aspect to the relationship that helps it grow. Some participants socialize with their CPAs and may refer to them as friends. This does not appear to be a requirement to a enhanced relationship, however.

- Here's how a sample of participants describe the evolution of their relationships with their CPAs:

  "You're looking for somebody, and the CPA is the person I'm normally talking to...[who] probably knows more about my business than anyone else. Everything the bank asks for is something that almost comes through the CPA...they're an integral part of it."

  "For me, I just like to be able to pick up the phone and say, 'I have a problem'.... I need someone away from my office to be a sounding board so I have developed personal relationships with our attorney and with our CPA so that I can pick up the phone and call and get this advice."

  "I think basically it's just a long-term relationship. Eventually you learn more about what they can do and they explain things that they would like to do. I think you just build this relationship and you find they can really do more things for you."

  "[The partner] was a perfect match.... He wanted to get involved in our business, he was out there all the time, he was calling us on the phone, he was excited, he was challenged...so it just evolved from there."

  "You communicate and you get comfortable."

  "I think what it takes, the professional CPA...has to make an investment and they've got to pay their dues and a lot of it is just time. You've got to come out, you've got to take the time to get to know me, learn my business, learn the people and then contribute where you can contribute. And that's what our guy did. It took awhile, but he spent a good many hours before he did anything."

- In this research, many of the clients feel they initiated the request for specific enhanced services, rather than the CPA offering those services. Some, however, relate how the CPA pointed out areas where the firm could be of help or how they were told right away about all the possibilities of the relationship.

  "I asked...'Would you mind coming up and going over this?'"

"He managed to let me know that he was on my side and then eventually if a problem came up or something, I'd ask him for his advice and it grew from there."

"I think it's just their being there and us feeling comfortable with them and the CPA firm pointing out areas that we should probably look at."

"There is no evolution. When they walk in the door and sit down and assess your business needs, they offer you up front a wide range of services. There is no real waiting and letting time go by and asking an accountant."

- It is important to note that some participants don't feel the CPA relationship has to start out with just standard services before it can evolve to the delivery of enhanced ones even though that was the way it happened for them. One client comments that the CPA firm he uses has changed over time to have a reputation for more than accounting. He now refers to the firm for that reason.

"I don't think I've referred anybody...for accounting purposes. They're not going to get somebody just to do a tax return or bookkeeping."

- There is a belief among some participants that a mid-sized CPA firm is the type most likely to foster enhanced service relationships. The rationale is that a medium-sized CPA firm is small enough to offer partner-level involvement to a small to mid-size client, but large enough to have developed expertise and/or a referral network in a number of enhanced areas.

"I think there is a real service being provided by the local mid-size firms, not the Big Six and not the one to two person practitioner.... They take the time to know the business if you don't have layer upon layer of staff...and I think you get a more personalized level of service.... A small firm, I don't think you have other people to call on.... I think you need at least 3 or 4 or probably half a dozen people to balance this in order to become multi-faceted and be able to serve a variety of your clients' needs."

"We specifically chose [the CPA firm] about two and one half years ago and one of our criteria was that we didn't want a big firm. We wanted a regional firm because we didn't want to get swallowed up in the hierarchy of a big company."

"I was looking...to pick the one that we had the highest probability of partner-level involvement, but that was sizable enough that they would have a lot of expertise.... I think [our CPA firm] is kind of a mid-market firm and I think their structure comes closer to allowing you to get the kind of services we're talking about."

Critical Success Factors In Enhanced Relationships

- The most successful enhanced relationships are those where the CPA reflects the same sort of qualities participants look for in an "ideal" business/personal advisor.

- Some of the specific ways CPAs have demonstrated these qualities to clients in this research are:

  * They say clients can call anytime and they mean it.

  * They take the time to get to know their client's needs, and don't always charge for that time.

  * They offer creative approaches to situations.

  * They conduct formal and informal reviews of their client's business.

  * They're business generalists even more so than accountants.

  * They know their limitations and have an excellent network for referral purposes.

  * They cover the details as well as addressing larger issues.

- The following are examples, in participants' own words, of why some CPA relationships are so successful:

  "They truly care.... These people truly care."

  "I have crises and call...at 9:00 p.m.... [They say] call me tonight and tell me how this developed."

  "They know their limitations. They know when this is a tax issue, you need to talk to Bob. If this is a financial planing issue, this is an international issue, they bring in someone else."

  "How many times has he tapped you on the shoulder and told you he's proud of you?"

  "I remember when I got my first call at home at night late from a...partner."

  "They really hear what you're telling them and try to figure out a way to solve your problems, but it's not always in a book."

  "What we were looking for and what we got was somebody that you can almost call a business partner.... They'd do it and get it done and it would be done correctly, just like you'd pass it off to someone in your office."

  "I used to think of accounting problems as being accounting problems, but I don't think they are...they're a lot more than that.... What they do [is] they bring them all together and look at the big picture."

"He doesn't talk like an accountant."

"There's no condescension.... He takes the time with you to let you understand where you're headed and what's going on."

"He comes in and says, 'I'm not the best accountant.' But there are the bean counters in the organization that can dig deep into those details."

"You don't need to be concerned about asking a dumb question or being guarded in what you say."

"My CPA has one of the best networks of anybody I've ever worked with."

"We sit down on an annual basis and...we go through with quite a bit of detail how we've done for the past year...and they offer us solid advice."

"We sit down probably half a dozen times a year with somebody on a formal basis...and we'll have lunch, we'll talk over what our business is doing, and we've established what I would describe as a...good working relationship.... I feel those half a dozen times a year that we sit down with them are very, very important to the relationship."

- Similar to what is critical for any successful advisory relationship, there is no substitute for spending time with each other.

"I think what it takes is...to make an investment and they've got to pay their dues and a lot of it is just time. You've got to come out, you've got to take the time to know me, learn my business, learn the people."

- Not surprisingly, "good chemistry" between the partner and the client is essential. Some participants insist on a specific partner-in-charge and will accept no one else. Some clients also feel strongly about changes of other staff, particularly when they feel they have an outstanding working relationship with the current staff person. Others can be more flexible, provided the firm takes into account the importance of "chemistry" when assigning staff.

"I assumed that if they did that [switched me to someone else], then I was going somewhere else."

"I know other partners in the firm quite well and if something happened to the partner that we're dealing with, I think I could develop a relationship with one of the others. But it would have to be a circumstance where he came and told me why...and how we would make this change."

"I would resent it if he just said, 'we're going to give you to somebody else.'"

- Participants are most eloquent about the value of their enhanced relationships when the culture of the entire firm (not just the founding/managing partners) reflects the qualities of the "ideal" advisor. In these cases, participants feel they have an entire team available to help them.

  "I know [the founding partner], I've been in several meetings like this with him, but I've never socialized with him a bit. On the other hand, I know 3 or 4 of the senior directors or partners. I know 4 or 5 of the managers and then 4 or 5 of the basic auditors that come out, and it's really amazing that [the founding partner] has built a team of people around him that really do reflect him."

  "[The founding partner] has put together a good team and he doesn't have to do my books. I don't know if he can count in terms of doing a tax return."

  "One of the things I can attest to [this CPA firm's] success is the fact that I refer lots of people to them, not necessarily to [the founding partner]."

  "Our managing partner has been with us since the outset and we don't see him as much as we used to, but it probably isn't even necessary because of the relationship we have with the staff person."

Impediments To Enhanced Relationships

- A number of participants feel their CPA relationships are less than they could be, even though they may be receiving some enhanced services. It's not so much that they're unhappy with their CPA firms; rather, it's that they think opportunities are being overlooked.

- These participants complain that their CPA isn't proactive enough in pointing out problems, offering suggestions, and communicating his capabilities. They believe that they wouldn't be receiving enhanced services if they hadn't initiated the request. They wonder what else they're missing that no one's asked about, or that they haven't been told about.

  "We furnish a monthly statement to them but never get any feedback of either 'you ought to do such and such' or maybe some changing or tax planning."

  "They should make the extra effort and say, 'Would you like us just to review it to make sure it conforms to all the new tax codes?'"

  "How many times does the same thing happen that is never brought up?"

  "A big part of the business is asking 'Is there anything else we can do for you in these areas?'"

  "I know in my heart [the information]...is already there and some of the very best, bright, young, intelligent and experienced people have access to it from the CPA firm and I never get word one, not a word.... There is no summary at the end of the audit engagement...and there is no opinion."

"What I would really appreciate is telling me the things I don't know about...you find [the]...problem, you initiate the question. In their MIS department, they got the answer, but I have to find the question. What I fear most in this world is what I don't know."

"[If] they would take it as part of their responsibility to see if they can find some of those opportunities to present to you, I think that would be just amazing."

"Our partner has been working on this account longer than I have and yet he didn't come to me and say, 'Maybe you ought to slow it down a bit.'"

"I've been a client of my CPA firm, directly a client for 25 years and I cannot tell you a complete list of the services that they can provide, nor how to go about getting them."

"We didn't know they offered any advice on computers....We didn't know until we went to our CPA and asked him about it."

"I would like them to help me discover the opportunities, tell me if I got something going over a cliff."

- Another gripe is that the partner in charge doesn't spend enough time to become familiar with a client's business and to understand his needs. Some participants feel the junior staff assigned to them are doing a good job, but are without the experience or perspective to offer the kind of advice a senior partner could. Some also feel the junior staff may be too preoccupied with details and deadlines to offer sound advice.

"I think one of the unfortunate things about the audit is typically, the people who are on the audit are the people who are the least experienced, who have the least business acumen.... The partner is not involved with the day-to-day. They don't see everything that's going on."

"Often...it's given to someone within the firm to work it up and come up with a tax return that's prepared on the computer, the partner looks at it, signs it...[but doesn't suggest]...some directions that you might be taking in the future, things that you could do."

"I would characterize the CPA that our experience is with...[as] very competent, very open. I would consider him an A grade advisor. But I probably spend no more than an hour a year with that person.... You go to the golf thing in September and...you see each other again for the next engagement letter."

"I don't believe the partners have enough time to really pursue the opportunities except perhaps their own."

"In my first 3 years of public accounting, we were just trying to figure out how to take care of the checklist. You just didn't have the experience and you didn't have the maturity either."

- One client eloquently illustrates what it feels like *not* to get the help he would like.

"We never got to satisfactory closure on it, so I was frustrated.... That's a business problem that I have to go to sleep with every night."

- Interestingly, some clients take responsibility for CPA relationships that aren't all they could be. They feel partially at fault because they aren't asking questions or taking the time to discover what the CPA firm could offer.

"This financial advice is something that...we probably don't get as much as we need to, but it's something that I guess you get what you ask for, and you've got to ask for it."

"I think I'd have to encourage it and...be a better client...be maybe willing to explore some ideas outside of what we've traditionally looked as being our client vendor relationship."

"It's very, very seldom you see a successful sales CPA-type person.... Maybe they don't feel like they can advertise it. So I'm going to go and ask them for it."

"You have to ask the question.... If you don't ask the question, I'm not sure it's the responsibility of the CPA firm to come in."

"I think what I've got to do is maybe open the door a little bit. I think as a client I can be a little more positive about some things and maybe I will open the pocketbook a little bit and maybe seek out some of those answers that don't just naturally come waltzing down the road."

- But the bottom line is, CPA firms must take responsibility for communicating their capabilities to their clients.

"I have not done a good job as a client, finding out what my CPA firm does. On the other hand, if I presume that responsibility on my part and if I would presume that with our clients, we'd be broke. If we're not out convincing our clients everyday that we're the very best firm to work with, and getting it in front of their faces all the time, they're never going to call us. They never ever will call unless we're out there telling them what we can do."

Client Suggestions For Fostering Enhanced Relationships

- Many of the suggestions participants offer for how a CPA firm could provide more enhanced services fall into the categories of staff training, communications, and incentives.

- Suggestions in the training area are:

  * Develop "people skills" formally through seminars, workshops, etc.

    "How do you teach people to develop relationships? Can you take someone who is basically an accountant and a CPA who is not used to dealing with feelings and people around, how do you teach them to be sensitive to the person they're dealing within their firm? How do you teach them to deal with your accounting manager as well as dealing with the president of a company, all different levels. You have to develop that, and it's not something that people develop overnight. I think it's a learning process."

  * Develop interpersonal skills informally by developing a structure where staff who possess greater skills and experience partner with or mentor inexperienced staff with fewer skills.

    "I think you should mentor or partner them with someone who has those skills so that they could at least pick up on it and see how it works and how you develop it."

  * Help staff obtain more of a "real world" business perspective.

    "If I was in the CPA environment I would try to get real world experience for the folks going out there."

  * Develop specific industry and/or specific application expertise.

    "Industry orientation would be something that could be of value."

    "I'd learn as much as I could about the industry."

- In the communications area, participants suggest the firm be more diligent in informing clients about its capabilities. Specific ideas are:

  * Invite clients to an open house to introduce key players and services.

    "I've never been invited to an open house that has a deal where it says on the wall this is the stuff we do, this is our insurance network group, this is where we hook you up with this kind of people and that kind of people. These are our computer guys."

* Develop a brochure and distribute it to clients and potential clients.

  "There was no brochure or anything describing the activities...saying this is what we do and this is what we're trying to do."

- By incentives, participants perhaps mean what is referred to as a "free trial" in other industries:

  * Consider offering some services "gratis" or not charging for every little service as a way to demonstrate genuine interest and caring.

    "We knew that there were 10 times that we had contacted that lawyer that was not on the bill. So that in itself said this person is interested in at least forming a relationship and we let it go and built on it and it worked."

  * Consider preferred customer treatment programs for those clients who are receiving lots of enhanced services and paying top dollar for them. This might be free admission to a seminar conducted by the firm that would be interest to the client, or some small project done on a gratis basis to thank them for their business.

    "If your account was large enough, I think it would be a nice thing for them to offer to do."

- Miscellaneous suggestions are:

  * Build opportunities for enhanced services into the checklists accountants use when they perform the standard audit and tax services.

    "Build it into their checklist. They have checklists everywhere. Have an IBM punch card telling them there's something else out there."

  * The CPA team who services the account should meet regularly with the client for the purpose of account review. Management letters with opinions and advice should be provided.

    "Maybe it goes back to the old management letter that you used to be able to get 20 years ago.... It used to be the thing that would wrap up the job. It would be this partner coming out and sitting down with the principal of the business and saying this, this, this, and this and by the way, [here's]...a little thing on the internal control stuff you need to fix up.... It was truly a management letter, a communication from the CPA firm to the company's principals or Board of Directors or shareholder relative to the operations of the business."

* Offer industry-specific information and services to clients. Again, this could be disseminated in written form, or through seminars developed and presented by the firm.

  "They could come in and prepare a letter telling you how this industry ticks, these are the success/fail factors in a particular industry.... It's more than the textbook stuff. Maybe some cases or whatever are things that could be of interest in this particular industry."

  "We're getting the service from a newspaper industry association and we supply financial information to a centralized database...then they compile a report...that compares virtually all the newspapers in the country that willing to participate...so we can look at our production ratios and sales ratios...and you can compare...so we know where we are and we get a good sense of it.... Maybe the CPA firms should be looking at trying to offer programs like that to specific industries."

- Participants caution CPA firms not to overlook the importance of performing standard services well in the zeal to provide enhanced services.

  "They have to focus on the areas of expertise that they have and we go to them for because we do want tax advice and because we do want an audit, and those are the things that we really depend on them for getting us the very best there is."

The Issue Of Fees

- These participants are adamant about their willingness to pay for value-added services. They are more interested in making money due to superlative advice than saving money by not paying for advice.

  "I was thinking about Charlie's Sporting Goods the other day. There's no place in the world that you can't buy something cheaper than Charlie's, but it's the only place in the world that I would buy."

  "The perception is...[we're] more interested in saving money than...making it...stepping over dollars to pick up dimes. [But] we understand the value of paying...for...a service."

  "I would pay for it. If I got some quality out of it, I would pay for it."

  "If...he was able to be at our directors' meetings once every quarter and he was able to come and sit down and go through the financial statements with me and say 'how about this and this?' I guarantee we could save enough money on an annual audit to pay for it. That's the thing that I would look forward to. It's a nice deal."

- They advise CPA firms to get into the value-added enhanced-service business because of increased competition from less-expensive firms who merely offer standard accounting services, something that may already be considered a "commodity" item.

  "Our business is relationship driven.... If it's transaction based, then somebody is always cheaper."

  "If you want someone to do the tax return or the bookkeeping work, that's fine, but when you get to a certain size in the business, if that's all you want, H & R Block's got stores down the street."

- Some feel enhanced services are best charged for on a flat fee basis rather than an hourly one. The rationale is that the CPA needs to spend a great deal of time really getting to know the organization and its principals before a meaningful relationship can be developed. Clients who "watch the clock" during this process might impede the development of the relationship. Offering an estimate on how much a service may cost might be another way to ease a client into an additional service.

Detailed Findings: The Partner's Perspective

Description of Participants

- Of the nine partners interviewed, two are founding partners. Five have been with their current firm for 20 years or more; three have been there between 10 and 20 years; one has been at his firm for only 4 years. All are men.

- They describe the client base of their firms as being primarily small to mid-sized businesses (typically private and closely held) and individuals. One of CPA firms has recently begun doing work for not-for-profit organizations (for example, auditing the state retirement fund).

- The types of businesses served are diverse (including apparel, construction, manufacturing, insurance, professional services, auto repair, and restaurants).

- Many kinds of enhanced services are provided by the partners in this research; specifically: business advisory services ("an approach to helping companies understand where they are and where they want to go"); succession and top management transition planning; acquisition, expansion, and capital-infusion assistance; negotiating sales of businesses; coaching, mentoring, and team-building; mediation, arbitration, and litigation; human resource searches, hiring, training, and benefit/compensation package development; taking over internal accounting or controller functions; MIS and computer systems studies and implementation.

Characteristics of Clients

The Ideal Client

- According to these partners, the ideal client:

    * Wants enhanced in addition to standard accounting services, values what the CPA firm provides, and pays bills on time. (It is even better if the client needs and wants the specific enhanced service that the partner most likes to deliver!)

    * Is growing, wants to continue to grow, and is currently profitable.

    * Is willing to change, is receptive to new ideas and open-minded.

    * Is always asking questions, thinking ahead, and has a broad perspective.

    * Is honest, fair, and respected by the employees.

    * Is vibrant, exciting, upbeat, innovative, and fun to work with.

- The following interview excerpts illustrate ideal client characteristics.

"One who would be constantly looking at acquiring other entities and they need me to conceptualize how we can do it....Where the client is really needing me to help them make decisions.... It would be something that's developing or building."

"Somebody that depends on us to help guide their business...where you not only would do compliance-type services but get involved very much with the planning and continuation aspects of the business and for most decisions, even some of which might not be in the financial arena, they would at least contact us before the decision is implemented."

"One that wants us to be in there helping them to improve their business, to have the communication, not only just to have an accountant to do their taxes and their financial statements for the bank, but to have us because they know we have knowledge and they can use that knowledge and we have a give-and-take relationship and it's fun to work with them.... My favorite right now...wants all the services we can give him, he's always asking questions, and he's very frank and up front about everything."

"Interesting, growing, aggressive in the marketplace and internally, willing to try new things, able to afford the kinds of services that we're really able to provide...a client who is...succeeding in getting bigger and needing us...innovative...somebody who is not willing to operate their business as a cash cow so the owners can pull out as much as they possibly can...looking at the future and trying to do new things and grow and prosper and not just hold their own."

"A client who is excited about growth,...they like what they're doing, and you can get involved with those types of people and really have a lot more fun and you get excited about going out and helping them."

"Someone who wants to improve and is willing to listen and to seek help from others.... The growing client, the profitable client...that we're not dealing with jerks...I want to like them...you want them to be positive about life."

"They acquire companies,...they're small, they need advice...there's always something going on...it's an every-month relationship...it's a very vibrant kind of company...exciting clients."

"A client who pays their fees, no fee adjustments...a growing business...have a need for...value-added services...a lot of fun...open ...everybody enjoys it."

"Financially sound but still has issues that need to be worked on, one that listens, looks at us as being more than...just a necessary evil and looks to us for advice and help...easy to get along with and they're fair, honest...people."

Least Favorite Client

- The partners in this research characterize the worst client as someone who:

* Is unappreciative and complains about the bill.

* Only wants the most basic of accounting services, wants them done as quickly as possible, and bases CPA firm selection decisions solely on price.

* Is not forthright with information and pushes hard for deductions, even sometimes to the point of asking the CPA to compromise their own integrity.

* Is complacent, risk-aversive, not open to new ideas, and doesn't want to change.

* Has a narrow, short-term, non-strategic focus.

* Is negative, argumentative, intimidating, paranoid, or hostile.

• In the partners' own words, these clients are described as:

"A tax return client that doesn't want anything,...they don't have good records and they're trying to push you to take deductions...when you finish you don't feel good...and always complains about the fee...when you start asking for information it was like you're pulling teeth trying to get it because they don't know whether it's going to cost them money so they don't know if they want to give it to you."

"Somebody that we do a lot of work for that could be very beneficial and they're unappreciative of it, usually in the form of fussing about the billings."

"People who want the most you can give them for the least...they complain...people who just generally feel you're a necessary evil, you're just to do their taxes because you have to have them."

"The owners are satisfied with the level of maturity that the company has reached and the primary interest is pulling cash out so they can support a lifestyle...complacent...don't strive to do a better job to improve their processes, to grow, to apply technology...they're not innovative...penny wise and pound foolish."

"A stagnant individual that all they can see is...cut costs...he went internal focused...and it wasn't fixing, it was cost cutting."

"Negative about most things...don't want to grow, they don't want to pay their fees, all they want is things done in a hurry...in as few hours as possible."

"The once a year, come in, do the review, do the audit, review the work papers, don't tell me anything because I know everything, a real compliance kind of client relationship. It's not very gratifying. I feel like a commodity.... Your billing is not valued, you're considered a cost of money."

"A paranoid personality where they might be abusive to staff or people...so focused on the fees to where they really don't want value. What they want is compliance strictly...clients who may go out to bid every year."

"One who looks at us as being compliance only, necessary evil, last minute, always pushing you to the edge as far as disclosure-type issues,...not being forthright, giving you half the information and you have to dig...always looking for loopholes...always...questioning the value of services being provided."

Characteristics of CPAs

CPAs Who Provide Enhanced Services

- An important characteristic of the CPA who provides enhanced services is his conviction that non-traditional services represent tremendous growth opportunities for CPA firms, especially in light of the increased competition for and decreasing profitability of traditional services.

  "I guess overall that the profession we're in is changing and the product, services that we deliver I don't believe are going to be there always or they're going to be delivered by others.... What used to be our mainstay for millennia is now to the point where computer software is going to do your compilations much quicker, much more rapidly. They won't need us to do as much of that.... People who we've always been able to sell our services to are going to get it cheaper [from]...other places, so we have to change our mind-set, change what we're about. We truly are business consultants and we're considered to be the number one business advisor out there. We've got an edge and we need to keep that edge. If we don't, somebody else is going to do it."

- The partners in this research identify a number of personality traits that they believe CPAs who enjoy providing enhanced services are likely to possess. Key among them are:

  * Comfortable taking risks, comfortable with uncertainty, likes a challenge, resourceful, not afraid to make a mistake.

  * Gregarious, extroverted.

  * Aggressive, and confident enough to point out problems to top management.

  * Honest and level-headed.

  * Looks to the future, sees the big picture.

  * Doesn't like to sit at a desk, finds standard work boring, may need help with organization skills.

  * A bit of a "thespian".

- They recognize that these types of personality traits are frequently associated with salespeople, not accountants.

- The following interview excerpts illustrate what it is about the personalities of the partners in this research that makes them effective enhanced service providers.

"You've got to get a little uncomfortable and stay uncomfortable...because if you're not, you're not growing, you're not learning."

"Sometimes you kind of have to jump off the ledge a little bit, too.... And if you get in the middle of things and you find you need some help, you go find some help."

"If I was sitting behind a desk I'd go batty. I can't do the same things day in and day out. I'm not someone who likes routine, detail-oriented things. I'd much rather be out trying some new things,...trying new ways to solve the same old problems as opposed to the same old, same old."

"He's always talking to clients. He's there, he's not sitting in the office. You can never find [him] which is good.... [He's] an aggressive person who is open, gregarious, willing to take a chance, stubs his toe like the rest of us, but more often than not, he hits home runs."

"You have to be willing to make a mistake and you have to have the personality perhaps with a delivery style to say...'this is what I think, and if I'm wrong, fine,...but you're going to hear what I have to say.'"

"I take risks every day."

"You're going to fail in some things, but you also end up learning some things that way, too."

"You've got to be resourceful but you got to not be afraid to say, 'I don't know the answer to that.'"

"What is the right way? Who knows!"

"I just said I could do it."

"[By aggressive I mean] a client-service partner...who is thinking about the company in a non-traditional way as if it were my company...a partner who is looking down the road and can visualize where that client is going.... Aggressive service partners are ones who look out, come up with new ideas, take an idea from one company and apply it to the next one."

"In presentations, you're a thespian."

- Interestingly, a few of the partners wonder if they should have become CPAs in the first place. Providing enhanced services has been a way for them to make their profession more gratifying and fun.

  "I probably should never have been a CPA, is the problem."

The "Typical" CPA

- The "typical" CPA is viewed by the partners as having a different set of personality characteristics from those associated with CPAs who deliver enhanced services. These characteristics will probably make it difficult for some CPAs to make the transition from providing only traditional accounting services to also providing enhanced services.

- The specific traits the partners ascribe to the "typical" CPA are:

  * Detail-oriented, technicians.

  * Perfectionists, afraid to make a mistake.

  * Obsessed with rules.

  * Bashful, introverted.

  * Dwells on mistakes and the past, instead of successes and the future.

- Here's how the "typical" CPA is described:

  "In accounting, we have a lot more of the people who want to do it the right way.... I've got a set of rules and I can put these things in a set of rules and give you a package and walk away and feel good about it."

  "Many people in the accounting profession are not real comfortable in a nebulous situation."

  "A lot of accountants are introverted."

  "We call them the big T, which is technicians.... We're so indoctrinated with technical, technical, technical auditing standards, tax returns, revenues, on and on, rules, rules, rules."

  "We're such perfectionists and technician oriented and we think we have to have all the answers and everything has to be absolutely correct and we're afraid to make mistakes."

"The way [CPAs] document our work and the way we review it, we review it for mistakes, not for successes, and so we're constantly giving...negative feedback."

"The accounting detail has a tendency to report what's happened, not on where things are going."

- Practically every single partner interviewed comments that CPAs are usually not good salespeople and not comfortable with selling per se. From their perspective, this is unfortunate since the delivery of enhanced services takes a bit of salesmanship.

"Most CPAs aren't salesmen."

"Accountants aren't known for their marketing abilities generally."

"CPAs migrate to this profession. I can't get a door slammed in my face because if you don't call me, I don't call you; those are our ethics. Very few CPAs become life insurance agents because what do they sell? One or two out of a hundred calls? This would be devastating.... We just couldn't handle it."

Fostering Enhanced Relationships

How Enhanced Relationships Evolve

- The CPA partners who develop enhanced relationships with their clients consciously work at building the relationship, although not necessarily in a structured or systematic way.

"It usually happens in the course of doing business with somebody, but the...intent of doing that is behind everything I try to do."

"I aspire to...structure, but I personally don't achieve that."

"It's conscious, yes...but it's not structured."

- Opportunity recognition is key; the partners are vigilant in looking for ways they can provide enhanced services.

"It is the ability...to recognize and point out opportunities...something that would be beneficial to that person or that business, that they don't really have an idea that the service opportunity is there...and obtain some type of engagement to do those things for them."

"The ability to recognize a comment and envision what it might possibly mean and then follow up with it."

"Most CPAs have enough information in their hands to consult probably half the time with the clientele."

"It was my job as the client-service partner to identify the opportunities and make sure we were following up on them."

- Opportunities for enhanced services are very likely to present themselves in the context of performing standard services, such as audits and taxes.

  "Mostly it was...compilation, review-type...standard, and then as it was going, it was trying to figure out what they needed to run their business better and save taxes."

  "Just talking and reviewing the stuff, I found there were a lot of problems in his records.... Just in pointing these things out, the man was real impressed with us."

  "You go in there with the intention that we're probably going to do their tax return and maybe a compilation or review.... In talking to them, you find they don't have a qualified accountant or they're not willing to pay $40,000 to $50,000 for a controller.... You have to at that point think to offer this type of service."

  "I think the audit is still one of the best ways for a variety of people to come in and look at what a client is doing."

- Standard service delivery is not mandatory, however. Partners have proceeded to provide enhanced services to clients who are not receiving other accounting services.

  * Sometimes clients are referred by someone outside the firm for a specific enhanced service.

    "Referrals from banking communities, referrals from attorneys,...from clients or friends of the firm that are in the same industry or going through the same sort of phase of business."

  * Other times, the opportunity to provide a enhanced service occurs while informally chatting with someone who isn't a current client.

    "You never know where it's going to come from. It's not necessarily business...it could be all sorts of areas...it could be someone that's totally not affiliated with the firm, that you've known in the community or somewhere else."

- Partners identify the following activities and skills as important prerequisites for recognizing enhanced relationship-building opportunities:

  * Getting out of the office to spend time becoming familiar with the organization and the key players. This should be on-going, not just in the early stages of the relationship.

"I had gotten to where I knew most of the management people, and we would sit down, and [they would ask] 'what do you think?'...And that's happened with others, too."

"Direct contact. I don't think there is a statistic or an economic indicator or whatever that would lead you to recognize opportunities any more so or any better than going one-on-one with the key people in the organization."

"If you're going to have this kind of relationship with a client, you've got to spend time with them...there has to be a personal connection,...then everyone is comfortable and it fosters the opportunities to spend more time and the more time you spend, the more comfortable they become and the more things they realize that you can do for them."

"You're there when they're going through the problems that they have. You're at their Board meetings, their stockholders' meetings, their meetings with outside people that are offering to do things for them, like finance or buy them."

"It requires spending time.... If we're content to send an audit team...to a client's office...and if I'm responsible for that engagement and I never choose to go there, then I'm passing up an opportunity to spend time there."

"People would rather do business with people that they know."

"[You can't be] sitting in the office waiting for the phone to ring."

"Number one, you've got to develop the rapport and trust...and that takes time which means that you've got to be out there and with them doing things."

* Time should be spent at the client's business and via informal socializing (breakfasts, lunch, golf, fishing, etc.). Informal socializing is important because it can make both parties more relaxed, comfortable, and open; thus leading to a greater rapport.

"Lots of breakfasts and lunches."

"I try...to have contact in a more relaxed atmosphere where you can sit down and talk about some of these things, about business. You can talk a lot of personal stuff, too."

"You got to get to a point where they're comfortable, they can have some time to think, and it helps build the rapport."

"I'll [build relationships]...via lunches, informal meetings. A lot of times when you're dealing with clients, we may have a lot of common interests.... Golf, good thing, 4, 5, 6 hours together...kind of get them out, get them with their spouse...it's just support."

* Become knowledgeable about the client's industry, and/or share the knowledge and expertise one has about the client's industry.

  "I started offering advice...being aware of their industry and what was going on in their industry."

* Really listen to the client. Don't do all the talking. Focus on the client's business and needs, not on accounting. Ask probing questions.

  "Part of what I feel that I'm good at is trying to listen to what each is really saying."

  "I was kind of the sounding board."

  "It's just intuition...trying to understand. It's listening, really."

  "Most people who are at the top really don't have a lot of people to talk to...[they want] to find somebody whom they can sit down with and talk to."

  "Listening on an on-going basis to their needs."

  "I have to be willing to listen. A lot of us don't listen. We want to power our way through the conversation."

  "Learn to listen and shut your damn mouth.... You have to learn to be like a doctor, to diagnose, and how you learn to diagnose is to ask questions."
  "We very rarely talked about accounting. We talked about his business."

  "You keep probing and probing and probing until you find the key. There's a key somewhere and if...we can find it, we can help unlock that relationship and make it blossom.... It's just hard sometimes to find the area they're really interested in."

- As the relationship grows and opportunities are recognized, some partners suggest specific enhanced services; others are more likely to respond to requests from the clients.

"I try to strive to make sure that they know what we can do."

"If they don't know that we do it, you have to offer it."

"He just over time got to know that we were a good-sized firm with plenty of capability.... I guess he knew just from talking to us and dragging things out of us. We would sit and talk and he would say, 'well, I didn't know that, tell me this.' He just was constantly asking questions and trying to improve his business.... And after asking a lot of those questions, he could tell we could be of help and he just started asking for more and more, in fact to the point where he said, 'I want you in here doing much more service for me. I want you to start telling me what all you can do,' and he basically dragged it out of us."

"Some clients want to ask and they want us to wait until they ask. Some clients would like us to always remind them of everything else that we can do."

- For the relationship to flourish, partners agree their must be trust between both parties and that the CPA must demonstrate genuine caring. Specific ways to do this are:

  * Do what it takes to get the job done.

    "We sat in a restaurant and we put him in a booth where he couldn't get away and...I said, 'I'm going to sit here and talk to you...until I'm absolutely convinced that you understand. And when I run out of breath, Roger is going to take over.'...At the end of the day he said, 'why didn't anybody ever explain this to me like this?'...And I think we have a client forever."

  * Be responsive and accessible; not necessarily just during business hours.

    "The guy with the divorce, it's been 30 days and I picked up the phone and called him...he didn't call me; he knows I care about him.... I have to let him know that I'll spend time with him. It's okay to call me, it's okay to call me at a bad time, it's okay to call me at home."

  * Ideally, anticipate needs even before the client recognizes them.

    "I went to the phone and I called Tom and I said, 'I understand you have a presentation tomorrow.' He said, 'Yeah; God damn, I'm worried.' I said, 'Would you like to just go over it with me?' He said, 'I'd love it!'"

  * Be enthusiastic.

    "You've got to believe in what you're doing, and you've got to enjoy it, that would be number one. By enjoying it, I mean you've got to be enthusiastic about it."

    "Pat them on the back when they're doing something good."

  * Be empathetic.

    "I use myself as an example. I don't give them intimate details of my life, I only use parts. [I say] 'here's how we approached it'; not 'here is how we concluded'."

"I had to really empathize and talk with them as his friend as much as his accountant."

"I told [a client]...that somebody who is making $300,000 a year in New York in a big organization has some of the same problems he has when he gets up in front of people in his organization.... It's okay to need help."

* Don't keep looking at a watch. Provide some help or advice gratis.

  "I have to take my watch off and put it in my pocket. The worst thing you can do when there's a really important issue is to keep looking at your watch."

  "You've got to give away some things, give them some time.... If they've got a problem, if it's a problem I've seen before and I can give them 2 or 3 ideas to solve it up front, I'll do that."

* Always follow through on what is promised and to see if the service was really of value. Offer to help implement your recommendations.

  "Most consultants, when they come through, will deliver a...report and you never see them again, and the report basically gathers dust. The follow through is what makes the report have value."

- Monitoring the effectiveness of the relationship is also important in nourishing it. At least one CPA firm administers written surveys to assess client satisfaction.

  "We send surveys out to clients after every tax return or financial statement...and that's the first early warning system."

  "If you're fast, if you're responsive, if you show you really care, and when you blow it, admit it."

- Once the door is opened to providing enhanced services, usually more and more are provided as time goes on.

  "We're beginning to offer computing consulting services and more and more we go in and serve as their controller.... At the same time, when you're in there as their controller, you find out about other needs that they have that they may not even ask you about."

  "When you have a relationship, a rapport, an ability to be intellectually honest with the highest level of decision-maker, there's a good chance of success over time, having done many successful engagements for a company where it's clear value-added."

Other Critical Success Factors

- The partners in this research agree that the client's receptivity to a enhanced relationship is an important prerequisite in the relationship's development. So too is access to the key decisionmakers.

  "If you're looking for why a successful relationship occurs, in my view, it's when the client is open to a discussion."

  "The person has to be willing and able to change first...willing to acknowledge or admit that he has done something that should have been done differently and willing to change even if he has ownership in where he's at."

  "It depends a lot on the client, because I personally could not make this happen if it wasn't going to happen anyway.... They have to be open and they have to be looking for something, I think."

  "People that we think will be receptive [and] positive."

  "The best situation [is] where they're involved in the process, they want to assist the process, they understand their responsibility in the process as well as ours...rather than something external that's being imposed upon them."

  "You have to make a commitment to continuing the relationship for the benefit of both parties. It can't be one-sided."

- The client who possesses many of the characteristics described in the earlier "Ideal Client" report section is the type with whom enhanced relationships are most likely to evolve.

- Equally critical is the "fit" between the CPA and the client. Each and every one of the interviewed partners identifies "good chemistry" as a necessary ingredient to make the relationship grow.

  * "Good chemistry" may mean matching similar personality types. It may mean matching the service need with the CPA who particularly enjoys providing that service.

    "It's back to interpersonal relationships and the ease with which the people are working together."

    "You try to get somebody involved who may be able to develop the relationship, who may have a more natural affinity to what the company is doing, what the key people are interested in, both business and non-business, because that's an aspect of it, too."

    "What it boils down to eventually is, it's people and do the people connect?"

"You have to like them, I think.... If it's construction, do you like construction people? If you're in the medical field, do you like doctors?"

"By chemistry, I mean...you respect me and I respect you."

* The partners feel it is important to know the client and the CPA firm's personnel well enough to do a good job of matching. If problems arise with "fit", they will switch CPAs until, hopefully, the relationship works.

  "What I try to determine is, if there is someone that should be a good client...yet I'm not relating to that well, I try to get him with someone else quickly."

  "I don't think anybody would have a problem with standing aside and letting someone else become involved."

  "If it doesn't work, the client can tell you or you can perceive it and then you've got to sit down and be adult about it and...adjust it."

- Another critical factor is making sure that the CPA firm has "true expertise" or is able to locate a resource with "true expertise" in the enhanced service to be offered. There is a risk that if a firm does not do a good job on enhanced services for a client, it may bring into question the quality of the firm's work in all areas.

  "You've got to be sure that you're good at whatever this extra service is because they are evaluating you...if all of a sudden you do this extra service and you do it at a C level, you're running the risk that they're going to question whether [your standard services are] really an A, and just question the whole relationship."

  "You have to be very careful about trying to do something that you don't know anything about because that can be a disaster and it can destroy a relationship that's been in development for a significant amount of time."

- Also important is making sure the CPA firm continues to provide quality standard accounting services. How well these services are delivered will, in part, reflect on how well clients believe the firm will be able to deliver enhanced services. Moreover, it is often in the performing of standard services that many opportunities for enhanced services arise.

  "The tax return and the reviews and stuff have to be right so that I can go do these other things and I've got to have people in the organization who can get that done."

  "You've got to have a mix of a lot of different people in an accounting firm. You've got to have caretakers and you've got to have the detail people who know how to get it right."

"You need to have a balance and you need to have the partners and staff that do compliance work because you need the people to get the work done, get it to the client."

- How well the CPA firm as a whole manages the process of enhanced relationship development is quite important, as well. The partners in this research admit they need to figure out ways to give CPAs time to develop relationships and to follow through with their commitments. They'd like to be able to match client and CPA more accurately from the start. They also acknowledge that "bouncing back and forth" from the detail work of traditional accounting services to delivery of enhanced services can be quite difficult.

  "We get so busy just doing the traditional services around here with all the deadlines and just pressure to do everything and get it done right and get it done on time that we forget that we can actually get out there and do some real good for a lot of these clients."

  "I'd like to say that I [have a systematic way of following up with clients]. I don't really do that. Would it be better if I did? Yes, absolutely. Do I have forms? Yes, I have probably 3 or 4 different sets of forms. Do I use them regularly? No."

  "You get bounced back and forth and not concentrated well on things."

  "If I get bogged down in the traditional, I don't do anything else."

Suggestions For Fostering Enhanced Relationships

- The partners' suggestions for fostering non-traditional relationships fall into two broad categories: staff training and marketing/promotion ideas.

Staff Training

- All the partners are clearly committed to the notion of employee training. Most, if not all, of them have personally invested in and benefited from training. They feel training is critical to help CPAs develop people skills, marketing/selling skills, and general business management skills. They also see training as useful in helping the firm as a whole develop a culture of fostering enhanced service relationships.

- Examples of the types of training they have either already implemented or would like to implement are:

  * Seminars/courses that focus on general business management topics such as developing business plans, strategic thinking, setting goals, succession management, life cycle stages of businesses, business owner survival skills. One partner specifically mentions Executive Insight diagnostic business "personality" tests as a tool he's found particularly useful. One overall purpose of this type of training would be to help CPAs understand their clients' needs better.

* Seminars/courses and books (such as *The Effective Executive* by Jerry Drucker) that focus on leadership, consulting, coaching, presentation skills, selling, and people skills. In addition to skill acquisition, these types of experiences should help CPAs "get out of their comfort zones".

* Experiences that help CPAs become experts and to develop a lot of well-placed contacts in specific industries or specific types of services. As one partner explains,

  "When somebody introduces me, they say...'he's the director of our SEC practice and...works with literally all of our clients who are trying to raise money...he's on this committee and on that committee'.... You're a somebody; you're not just a CPA. And that's the way we...add value."

* Partnering CPAs who are less experienced in providing enhanced services with CPAs who are effective enhanced service providers.

* Experiences that help the CPA firm *as a whole* focus on how to implement and market all sorts of services, both traditional and non-traditional. Rewards systems for those CPAs who manage to make the transition from standard services to include enhanced services also need to be devised.

  "[The way we] decided what services...to offer or...market...is with [name of program] and we went to it a year ago and they laid this whole road map out for us."

  "[Because of program] we have a whole system that's going to be helping us do that. The main thing and the first step that we're going through right now is to get training at all levels in the organization so that everybody is aware of the potential for expanded capabilities and everybody becomes a salesperson, as opposed to just one or two people in the organization."

  "I'm taking a course right now. It's called [name of program], and it's to do with business plans and all. It's like setting up goals, and those are things I've never done. And that's something our firm needs to do [to figure out]...how can I get to that work and what do I need to do to make it."

- The partners sound three cautionary notes with regard to training in the development of non-traditional CPA relationships.

  * The first is to communicate to employees that the partners recognize some will be better at developing enhanced relationships than others, but that it's important to at least try.

"You got to let them know that it's important that you do it. You have to let them know that you don't expect them to go out and sell, everybody at the same level. Some will be better than others,...and that's okay."

* The second is to recognize that some employees will never make the transition from standard service delivery to include enhanced services, and to decide what the career path within the firm will be for these individuals.

* The third is to select training experiences very carefully, particularly if they will be firmwide. This is because CPAs in general typically go through many training experiences and there may be a tendency for some of them to feel "jaded" after awhile. This is especially the case for those who have already been through a number of people-skills and leadership training experiences.

  "We've had lots of training over the years.... The former managing partner...loved to have people come in and train us. We got to the point where we were tired of hearing the training. And it some of the time got redundant."

Marketing/Promotion Ideas

- Some of the specific techniques these partners have used to market enhanced services include:

  * Advertising (radio, Yellow Pages, major mail-outs to current and prospective clients identifying the new services being offered).

  * Offering money-back guarantees for non-traditional services.

  * Offering seminars to clients on "just about anything that has to do with making an business better overall".

  * Listing all the services, both standard and enhanced, that the CPA firm provides on its letterhead and any other written materials the firm uses.

  * Giving talks and speeches at events potential clients are likely to attend, such as conferences or Rotary luncheons.

  * Networking with bankers, attorneys; joining clients' industry associations; attending appropriate industry functions and conferences.

  * Conducting research among current and prospective clients. (One partner invited prospective clients to a panel discussion focused on likes/dislikes of their current CPA firm. To thank them for participating, he gave gift certificates for two to go out to dinner.)

  * Low initial pricing with prospective clients who are judged to be prime candidates for enhanced services.

The Issue Of Fees

- The partners agree that when it comes to paying for enhanced services, if the service truly adds value, the bill will be paid without complaint.

- They also agree that once the relationship is established, it should be possible to charge relatively higher rates compared to standard accounting services. This is because:

  * Services that really add value are worth more to the client.

  * Increased competition from places like H & R Block, American Express, IRS on-line capabilities, and packaged software programs will drive down the price CPA firms can charge for standard services.

    "It's when you get to the compliance side of things, what they're paying for is pretty commodity-driven."

- Suggestions are made to get away from the traditional method of charging by the hour for the same reasons given by the clients in the focus group sessions, namely:

  * The client will relax and feel more comfortable if he or she isn't watching the clock.

  * The client won't be tempted to skimp on the time it will take to enable the CPA to truly understand his or her business.

    "The client doesn't watch the clock because when you're doing by the hour stuff, every time you walk in, they know that you're sitting there at 150 bucks an hour. They don't relax as much, they don't give you as much time.... [When you charge a fixed fee] they're not worried about whether you're there 10 minutes or 3 hours."

- The following is an example of how one of the partners in this research charges for an enhanced service:

  "There's a process that I go through and I know that to sit down with a CEO is going to take about $2,500. To sit down and do the management team, depending on how many people are there, it's going to take 6 to 8 grand. If I'm going to push it on down through the next levels, it could be 15 to 20 grand, and I give those number and ranges up front. And then they bite off at what level they want."

Detailed Findings: The Salesperson's Perspective

Methodological Note: This interview was conducted to get the perspective of someone whose job it is to develop new business leads for the CPA firm which employs her, but who is *not* a CPA herself. This employee, in addition to following up on leads and writing new business proposals, has become similar to an in-house trainer for her firm; she conducts workshops, seminars, and round-table discussions as well as "coaches" CPAs who are "testing the waters" on a one-to-one basis. Her insights follow.

How to Introduce CPAs to Selling

- First, help CPAs admit that they are afraid of selling. Often, they will tell the trainer what they think the "right" answer is, but the truth is that selling scares them. They're afraid of rejection and that they won't do it well.

  "Selling is sort of sleazy, it's sleazy, it's scary, it's not professional...that's the first thing we address.... I ask people what does this word mean to you...the one thing nobody ever says but they all feel is fear. So I bring it up."

- Help them discover that they already are doing many successful selling-type activities and probably don't even know it.

  "Sales is really nothing anymore different than how they currently deal with their clients."

- Assure them they will not be expected to "sell" in the same manner as some of the high level managing partners are perceived as doing. Encourage them to find their own style.

  "You have to get people to understand that just because one person is good at sales, it doesn't mean that's how you have to be, that that has to be your approach to selling, because what works for me...does not necessarily mean that your approach is going to be the same. You and I have different selling styles."

The Importance of a Needs Assessment Interview

- The key step in being able to provide an enhanced service is to conduct a needs assessment interview. The purpose of this interview is twofold:

  * To get the client to verbalize what the "true" needs/problems are.

    "It's more than just asking them about their business or asking them a little bit about the problems that the have...the issues go much deeper than what they generally will tell you...digging below the surface and getting the client to verbalize what those issues and those problems mean to him."

* To get the client to verbalize what the implications of not fixing those problems are to the business and to him, personally.

  "You lead them through the process of self-discovery of what the issues truly mean to them and what the implications would be of not fixing them and what the benefits would be of fixing them."

- This is not an easy task:

  * First of all, CPAs in general have a difficult time restraining themselves from jumping in and offering advice. They need to learn to let the client do the talking; their job is to ask questions.

    "Accountants are trained to be advisors...trained to tell people things. If you can get them to quit telling the prospect what they need to be doing and question the prospect around the issues so that the prospect tells them, you're getting that person to take ownership of the problem, the implication, and the benefit of fixing it and you don't have to do the selling. They sell themselves."

  * Secondly, managing the interview and asking the right questions to elicit genuine needs takes practice. If not handled well, superficial answers result.

    "It's hard. To me, it's a behavior style or behavior change.... You can't sit down in a day or half a day or...a two hour session and change people's behaviors.... [It] takes an awful lot of personal commitment and follow-up...it takes...preparation."

- An example of a particularly potent question to use in a needs assessment interview is: "What keeps you awake at night?" (Interestingly, one of the clients in the focus group used words to this affect when expressing frustration with a CPA firm when a problem had not been resolved satisfactorily.)

- Ideally, new business proposals should be prepared *after* the needs assessment interview has been completed. As the following interview excerpt illustrates, a proposal may not even be necessary when a needs assessment interview is effectively conducted.

  "A tax manager went out...this was his first call with this prospect.... The entire time was spent talking about the company and where they were headed [and]...the problems that they're faced in getting there and how those problems might be solved, without [our firm's] name and the laundry list of all the things that we do coming up....While we had competition on that prospect, we never had to write the proposal. They just said, 'It's yours. You're the only one that came in and cared enough to spend the entire time talking about us instead of your firm.'"

Effective Training Techniques

- Role-playing is a powerful device to help people learn new behaviors and skills. Nobody really likes them, but they are nonetheless an important training technique.

  "Role plays are good...although it's uncomfortable for people and everyone hates it, including me. But there is no more powerful way for people to practice in a safe environment and to get input from other people."

- Instruction, either group or one-on-one, on interviewing techniques has also been found to be quite helpful.

- Individual "coaching" before a new prospect meeting and debriefing after the meeting have proven to be beneficial.

- Presentation skills training has also been helpful.

- Also effective are round table discussions focusing on each of the enhanced services the firm offers. These discussions were originally implemented because even the CPA firm's own employees were not always aware of all the different types of services the firm provides. In addition to increasing enhanced service awareness, these discussions also focus on teaching what kinds of questions elicit the best information about needs in a particular enhanced service area.

  "The thing I heard most when we started the round table training sessions was, we need to know more.... We know we have a consulting group, but we're not sure what those people do.... So we're going to [ask]...people...to come in and talk about specifically one thing — what should you be looking for when you're out talking to your clients? What kinds of questions would you ask to find out if this is a need that they have?"

Individual Advice

- One of the strengths of this business development expert is that, when advising firm employees on how to develop new business, she takes into consideration the level of the employee and tailors her advice accordingly.

- To managing partners, the following advice is offered:

  * Spend time with clients at their businesses in a non-accounting capacity to discover where the needs and opportunities are.

    "It's more than just going out a couple of times a year and taking a plant tour or taking them to lunch. It's really getting in underneath. I've always thought it would be wonderful if we could send...a couple of managers in our office for a week...out to a client in a PD [practice development] role, a non-billable situation and ask them to work with the clients in something other than the accounting department. Either work with the president himself, side by side, in all the meetings that he goes to, the interviews with the vendors...or work in a sales position with one of the sales people, work out on the production floor to really get a feel, what a great way to build a client relationship and truly understand what makes that business function."

* Provide opportunities for staff CPAs to practice relationship building activities, both by offering specific training experiences and inviting them to accompany effective partners on needs assessment interviews.

  "I encourage partners and managers to take more junior people with them when they go on networking calls."

- To staff CPAs, the following counsel is given:

  * Be a self-starter. While the firm needs to provide opportunities, don't wait for the opportunity to be handed to you.

    "I encourage [them]...to go talk to the managers and the partners and you bug them, you bug them and you bug them, number one, to take you out to meet clients. Number two, to take you out on networking calls, and number three, to take you out on prospect calls.... I'm a firm believer that the firm has some responsibilities to bring to the table opportunities for them to learn...but the employees also have a responsibility to come halfway.... We want to foster here a group of self-starters, people who are willing to step outside their comfort level."

  * Recognize that learning a new set of skills and behaviors requires a commitment.

  * Recognize that new business development in the area of enhanced services is really about developing relationships with people.

    "Get out and meet people. It's really all about knowing people and developing relationships."

  * To begin the process of new business development, start by interviewing successful business people that you know about what it is that makes them successful. Do this purely as an informational interview; no mention at all should be made about the CPA firm and what it has to offer.

    "Don't start with these people with, 'how can I get your business?' What you do is, you go to these people and say, 'I see you as being a successful business person. What did you do to get where you are today?'"

  * Join trade associations.

- * Do volunteer work, but do it sincerely and not just for its value as a place to develop business contacts. In volunteering, seek positions that require active group participation and decision-making so that you meet people and get noticed.

  "Volunteer for something that requires that you interact with people and actually produce something,...because that's how you get to know people."

- * If you feel shy going out on a needs assessment interview alone, bring along a fellow employee from whom you can learn.

  "I find with the very timid ones, they need to go out with somebody, and I'll take them with me so they can hear my style."

- More senior CPAs (although not yet partners) are advised to develop relationships with bankers and attorneys.

- Her concluding words of advice have to do with the importance of continually reminding current and prospective clients that their business is truly wanted:

  "It's some version of the squeaky wheel theory, that if you're not out there constantly reminding people that we're looking for business, they forget and they go to XYZ firm down the street who was the last person to call on them."

Appendix: Discussion Guide

AICPA
Discussion Guide

I. Introductions
   A. Introduce self
   B. Explain focus groups
   C. Topic for this evening — professional services
   D. Disclose audio &/or video taping, client viewers, confidentiality
   E. Explain focus group process
   F. Introduction of participants
      1. Name
      2. Type of organization for which you work (industry)
      3. Age of company
      4. Title/responsibilities
      5. How you relate to CPA firm (purchaser of service, area audited, other)
      6. How many other CPAs/CPA firms you have worked with

II. Trusted Business Advisors
   A. What comes to mind when you hear the term "trusted business and personal advisor"? What else?
   B. What kinds of professionals have served as trusted business or personal advisors to you during your career?
      1. How would you describe this relationship?
      2. Did this person/firm's work for you extend beyond the scope of what you might normally expect from a person of that profession? How so?
      3. How did that relationship evolve to include services that you didn't originally associate with the profession?
         a. How did you become aware that this person/firm provided these types of services? Was this exchange of information initiated by you or him/her/the firm?
         b. What was your reaction upon learning that this person/firm-provided these types of services? (Did you feel they could provide these services competently, or did you have some hesitation about using this person/firm for these services?)
         c. What contributed to the development of this relationship to include these services?
         d. At what point in your relationship did this professional/firm begin to provide these services — early on in your relationship, or after you know them for a while? How long?
         e. What contributed to the evolution of this relationship? (Trust, chemistry, an understanding of your business/industry, familiarity with person/firm, your company undergoing changes)
      4. What was *critical* to the success of this relationship?

III. CPA/CPA Firms

A. What comes to mind when you hear the word "CPA"? What else?
B. Describe for me your experiences in terms of the range of relationships you have had with various CPA/CPA firms.
   1. What kind of service relationships have you had with various CPAs/ firms?
   2. What kind of "chemistry" have you had with various CPAs/firms?
C. What kinds of services do you expect a CPA or CPA firm to provide?
D. What comes to mind when you hear "CPA" and "trusted business and personal advisor"? Can a CPA be a trusted business and personal advisor?

IV. Relationship with Current CPA Firm
A. How long have you been working with your current CPA/CPA firm?
B. Has your primary contact with the firm always been the same person? (If it has changed, what accounted for the change?)
   1. Describe this relationship for me.
C. Describe for me the evolution of this relationship. What was the CPA/firm originally hired to do for your company?
   1. How satisfied were you with those services?
D. What kinds of services does your CPA/CPA firm now provide for you and your company?
   1. What led to the addition of these services?
   2. How did you first learn that this firm provided these services?
   3. What was your reaction when you learned that this firm provided these services? Did you consider these types of services to be unusual for a CPA/ CPA firm to provide?
   4. What other types of firms/professionals were considered for this work?
   5. What led you/your company to decide to go with the CPA/CPA firm?
   6. Who in your organization was involved in this decision?
   7. How satisfied are you with the services now being provided by your CPA/CPA firm? Any regrets about going with a CPA for these types of services?
   8. Would you trust CPAs in general to provide these types of services, or is this CPA/firm unique in some way that makes him/her capable of providing these services?
E. What was critical to the success of this relationship?
F. What kinds of services, other than the traditional auditing services, would you most expect a CPA firm to offer?
G. What kinds of services other than these would you like to see your CPA firm offer? Why?

V. Summary
A. Does anyone have any final comments you'd like to make about anything we discussed this evening? Thank you very much for your help.

Americans' Attitudes Toward and Interest in "Elder Care Assurance"

Excerpts from the results of A nationwide survey conducted by Yankelovich Partners, Inc. for the AICPA Special Committee on Assurance Services — December 1996.

Background and Study Purpose

To better understand Americans' attitudes and concerns regarding the care of an aging parent or close relative and to assess interest in a program of services to assist in that care, the AICPA commissioned Yankelovich Partners to conduct a nationwide survey among key consumers.

Key issues examined in this study include:

- Concerns regarding parents or close relatives as they grow older.
- Characteristics desired in helping professionals.
- Interest in a program of services designed to help care for an older parent or close relative.
- Perceptions of "Elder Care Assurance" as a name for this program.
- Attitudes regarding CPAs coordinating and overseeing these services.

Study Methodology

- In order to achieve these objectives, Yankelovich Partners interviewed 200 Americans age 40 to 64 with an annual income of $80,000 of more.
- For comparison, Yankelovich Partners also interviewed 51 Americans age 65 to 75 with an annual income of $50,000 or more.
- Interviews were conducted via telephone from October 8 to October 15, 1996.

Summary of Findings

Interest in Using Elder Care Assurance Program for Parents or Close Relatives:

- Eighty-nine percent of higher income Americans age 40 to 64 years old say they would be "extremely, " "very," or "somewhat" likely to use the services included in elder care assurance should the need arise.
  - One half (51%) say they would be "extremely" (12%) or "very" (39%) likely.

- Home health care and assisted living are the services most likely to be utilized by those saying they are extremely, very, or somewhat likely to use elder care assurance.
  - Home health care — 92%
  - Assisted living — 80%
  - General upkeep and care of home — 53%
  - Household finances — 14%

- Two in five higher income 40 to 64 year olds (38%) would be "extremely" or "very" interested in arranging for elder care assurance services as part of their own personal estate or financial planning.
  - An additional 41% are somewhat interested.

Characteristics Desired in Professional Helpers

- When turning to professionals for assistance with problems concerning the care of someone who is growing older, nearly all higher income Americans age 40 to 64 say the following would be "extremely" or "very" important:
  - That the professional be reliable — 99%
  - That they trust the integrity of the professional — 98%
  - That the professional be compassionate — 97%
  - That the professional deliver a service that is high quality — 96%
  - That the professional be accredited — 82%

- Of these, trustworthiness (37%) is most frequently cited as the characteristic respondents feel is most important for a professional to demonstrate, followed by reliability (27%), compassion (18%), and high quality (13%).

CPAs and Elder Care Assurance

- One half of higher income 40 to 64 year olds (52%) say the involvement of a specially accredited CPA would make them more likely to use elder care assurance services
  - However, 28% say the involvement of a specially accredited CPA would make them less likely to use these services.

- With respect to elder care assurance services, higher income Americans age 40 to 64 say CPAs, in handling these services, would be

	Extremely/Very	Extremely/Very/Somewhat
Reliable	57%	90%
Trustworthy	55%	89%

	Extremely/Very	Extremely/Very/Some-what
Compassionate	19%	63%
Likely to deliver a high quality service	45%	82%

Experience with CPAs

- Seven in ten higher income Americans age 40 to 64 (68%) report having used the services of a CPA

- Among these, CPAs have been used for:
  - Individual tax preparation — 93%
  - Business tax preparation — 64%
  - Business accounting and auditing — 51%
  - Estate and tax planning — 45%
  - Investments — 40%
  - Business consulting — 38%

Views of Older Americans

To gain a perspective on older Americans, interviews were conducted among:
- 51 Americans between 65 and 75 years of age
- With an annual income of $50,000 or more per year.

Due to the small size of the sample, these data should be interpreted cautiously and used solely for its qualitative or directional value.

The opinions and attitudes of the 65 to 75 year old Americans participating in this study are largely similar to those held by 40 to 64 year olds. Noteworthy exceptions include:
- Older Americans are more likely to use elder care assurance services than 40 to 64 year olds expect.
- Peace of mind is far and away the most important reason cited by 65 to 75 year olds for their interest in elder care assurance services.
- Higher income Americans age 40 to 64 express more concerns regarding their parents growing older than 65 to 75 year olds express themselves. This is especially true for handling emergencies, traveling to medical appointments, and taking medication properly.

Identifying Client Needs: A Checklist

Often the best way to expand your practice is to find opportunities to provide additional services to existing clients. Asking the right questions can help you learn clients' needs for quality information. The AICPA Special Committee on Assurance Services developed the following set of questions you can use to identify new service opportunities.

Clients make decisions based on information. The information might be financial or nonfinancial, relate to data or systems, or come from internal or external sources. The information clients actually use is often not directly relevant to their problems or not reliable. But they use it because better information has not been developed or because they haven't linked their decision needs with the range of available information. Assisting clients to identify information needs and then finding or developing the information can be a high-value service.

The following questions should be asked during a typical client service engagement. Depending on the client relationship, they might be asked during a formal meeting or informal lunch with the controller, CFO, CEO, or other executive. In any case, notes should be taken in order to communicate the importance of the discussion, to assist in the follow-up discussions, and in later documentation of suggestions.

- ❑ What important business decisions keep you awake at night?

- ❑ For each type of decision: What kind of information is most helpful to you in making the decision?
  - ❑ Who provides it?
  - ❑ Is it adequate, or do you feel you're flying blind?
  - ❑ How do you know if it's accurate?
  - ❑ Is it useful in the format in which you get it?
  - ❑ What other information would be helpful that you can't or don't get?

- ❑ Is the information you need about operations readily, regularly, and quickly available?
- ❑ Is it adequate to:
  - ❑ Compare with prior periods?
  - ❑ Measure against goals and benchmarks?
  - ❑ Compare with competitors?

- ❑ Do you need information from outsiders, such as customers or suppliers?
  - ❑ Can you easily obtain the information?
  - ❑ Is it reliable?

- ❑ What information do you need about:
  - Relationships (for example, suppliers, customers, partners, labor)?
  - Outputs (for example, product quality, customer satisfaction)?
  - Markets (for example, competitors, market share, customer preferences, technologies)?
  - ❑ How do you obtain it?
  - ❑ How do you know if it's accurate?
  - ❑ Is it useful?
  - ❑ What would make the information more useful or valuable to you?

AUDITOR ASSOCIATION WITH BUSINESS REPORTING

To what extent should auditors be associated with the information provided by business reporting? That question is the second part of the Committee's charge.

THE AUDITOR'S CURRENT ROLE IN BUSINESS REPORTING

Auditors are associated with business reporting in various ways. They usually are engaged to report on historical financial statements. However, auditors also issue special purpose reports related to specific amounts included in the accounting records, report on the system of internal accounting control, and report on prospective (forecasted or projected) financial statements.

REPORTS ON HISTORICAL FINANCIAL STATEMENTS

Under current rules, the auditors' work on historical financial statements is performed under the following basic concepts:

- *Independence.* Auditors must be independent in fact and in appearance from the interests of the companies on which they report.
- *Two levels of assurance: audit and review.* Auditors can be engaged to either audit or review financial statements. In an audit — the higher level of assurance — the auditor reports whether the financial statements are fairly presented in conformity with standards. In a review, a form of negative assurance, the auditor reports whether he or she is aware of any material modifications that should be made to the financial statements. A review generally consists of inquiries of company personnel and analytical procedures applied to financial data. It involves less work than an audit, which includes confirmation, observation, recomputation, and other procedures in addition to analytical review. Even an audit, however, provides only reasonable, not absolute, assurance. It neither guarantees nor ensures the accuracy of the financial statements or the fairness of their presentation.
- *Report on the assertions of others.* The assertions in the financial statements are the responsibility of the company's management. The auditor's job, as currently defined, is to report on those assertions. With relatively rare exceptions, auditors do not assert. Rather, they offer opinions on the assertions of others.
- *Standardized reporting.* Auditors' reports on financial statements are highly standardized. Auditors have little flexibility to customize their reports. Thus, audit reports are generally the same from company to company.

The SEC requires that public companies obtain audits of their annual financial statements. The extent of auditor involvement with the financial statements of private companies is determined by negotiation between a company and the users of its financial statements and generally not by law or regulation. However, some private companies, such as financial institutions and insurance companies, for example, are required by law or regulation to obtain audits of their financial statements. Other private companies obtain audits of their financial statements due to a variety of factors, including size, nature of financing of the business, or the degree of risk perceived by users.

Auditors also issue audit reports on individual elements of financial statements, such as receivables and inventories. Users request those reports in areas of specific concern, such as collateral that secures a loan.

Reviews of financial statements are common. Smaller private companies arrange for reviews in place of audits of annual financial statements when the cost of an audit is a significant concern or when users perceive the risk to be low. Also, larger public companies often obtain reviews of the quarterly financial statements they file with the SEC. Auditors rarely provide assurance on quarterly or other interim financial statements of private companies.

Auditors seldom publicly report on sections of business reporting outside of financial statements, such as the description of the business and properties, the president's letter, MD&A, and the material in the proxy statement, although standards do not prohibit that reporting. Auditing standards require only that auditors read the information in those other sections and bring to management's attention any matters that are inconsistent with the financial statements or the auditors' understanding of the facts.

SPECIAL PURPOSE REPORTS

In addition to the reports they issue on historical financial statements, auditors frequently are engaged to issue special purpose reports to specifically identified users of the financial statements. Special purpose reports, which result from negotiation between a company and users, are tailored to the unique requirements of the particular user. Examples include reports for underwriters regarding financial measurements disclosed in SEC filings in sections other than the financial statements and reports for creditors regarding compliance with contractual provisions in loan contracts. Unlike audit procedures in audits of financial statements, which are based on standards, the procedures supporting special purpose reports are specified by the user. Special purpose reports usually state only the procedures performed and the related findings; the auditor usually offers no opinion about what is being reported or about the sufficiency of the procedures for the user's purposes.

REPORTING ON INTERNAL CONTROL

A company's system of internal control serves various objectives. Three common ones are that assets are safeguarded, transactions are authorized, and accurate records are maintained.

Although reporting on the effectiveness of the system of internal control generally is optional, managements of public companies occasionally report on the effectiveness of internal control systems. Those that do usually do so to add credibility to their business reporting, particularly the financial statements, and to acknowledge accountability publicly. However, auditors rarely report publicly on internal control, even when management does so. The auditor's report on internal control usually identifies management's assertion about the effectiveness of internal control over financial reporting and provides an opinion on whether that assertion is fairly stated based on control criteria.

One notable exception to voluntary reporting on internal control applies to certain financial institutions. The Federal Deposit Insurance Corporation Improvement Act of 1991 requires each large insured depository institution to include in its annual report to the FDIC — but not in its annual report to shareholders — a management report on the effectiveness of the institution's controls over financial reporting and an auditors' report attesting to management's assertions.

REPORTS ON PROSPECTIVE FINANCIAL STATEMENTS

Standards permit auditors to examine and report on prospective financial statements. Because public companies rarely include prospective statements in public reports and the SEC permits only the highest assurance level of reporting on such statements, auditor reporting on prospective financial statements of public companies is relatively rare. It is somewhat more frequent for private companies and usually results from negotiations between a company and users. An auditor's standard report on an examination of prospective financial statements includes an opinion about whether (1) the statements are presented in conformity with guidelines and (2) the underlying assumptions provide a reasonable basis for the prospective statements.

USERS' NEEDS FOR AUDITOR INVOLVEMENT WITH BUSINESS REPORTING

The Committee included issues of auditor involvement with business reporting in its study of the information needs of users. More specifically, the study focused on questions in three categories:

1. *Importance of auditor involvement.* To what extent do users value auditor involvement with business reporting? What are the benefits to users of audits? What aspects of auditing are disappointing to users?

2. *Expanding auditor involvement with information not now audited.* To what extent would users benefit from expanding auditor involvement to include information in business reporting not now audited, such as MD&A? Are the benefits of audits greater for some types of information than for others?

3. *Expanding audit reports to include auditor analytical commentary.* Should audit reports be restricted to highly standardized reports or would users benefit from reports that include comments tailored to the specific company and circumstances? For example, should audit reports discuss the specific scope of the auditors' work and the results of that work? In addition to offering an opinion on management's representations, should audit reports include the auditors' own commentary, based on their audit work? If so, what topics do users suggest that auditors address in their analysis? For example, should audit reports offer a qualitative evaluation of a company's reporting in addition to offering an opinion on the financial statements?

The results of the Committee's study follows.

IMPORTANCE OF AUDITOR INVOLVEMENT WITH FINANCIAL STATEMENTS

Users believe auditor involvement provides independent assurance of the reliability of amounts reported and disclosed in financial statements not otherwise verifiable by third-party users. In the survey of users sponsored by the Committee, 95 percent of the participants agreed with that statement — 68 percent agreed strongly. Both measures were the highest degree of agreement for any of the 112 questions in the survey. The Committee's investor and creditor discussion groups also emphasized the importance to users of auditor involvement with financial statements.

Users believe auditors enhance the reliability of financial statement information for three reasons. First, audit procedures, such as observation, inspection, recomputation, and confirmation, verify the accuracy of reported amounts. Second, auditors focus attention on and encourage improvements in the system of internal accounting control. Those improvements, in turn, reduce the risk of errors in both interim and annual financial statements. Finally, auditor involvement provides a discipline for management to adhere to established reporting standards.

Auditor independence from a company and its management is critical to users and is key to the value that auditors provide. They rely on that independence to provide a useful check on management's natural bias to report on a company in the most favorable light.

Users are concerned about current pressures on auditor independence. They believe the need to maintain a good business relationship with clients in a competitive audit environment could, over time, erode auditor independence. They also are concerned that auditors may accept audit engagements at marginal profits to obtain more profitable consulting engagements. Those arrangements could motivate auditors to reduce the amount of audit work and to be reluctant to irritate management to protect the consulting relationship.

Users also are concerned about the credibility of business reporting. Most believe that, in general, rather than report neutrally, business reporting tends to portray the company in the best possible light. In the Committee's survey, 78 percent agreed with that statement and 34 percent agreed strongly. The Committee's discussion groups also indicated concerns over the credibility of reporting, as have earlier studies involving users, such as the 1987 study by SRI International, *Investor Information Needs and the Annual Report,* and the 1984 study by Hill and Knowlton, *The Annual Report: A Question of Credibility — A Survey of Individual and Professional Investors.*

Creditors using private company financial statements raise a different concern about auditor association with business reporting. Generally, users prefer audits over reviews because of the increased assurance that audits provide. However, they accept review reports when they judge the risks to be acceptable in a competitive environment. Creditors are concerned that companies may reduce the extent of auditor involvement to offset increased costs if accounting requirements are increased. Companies could, for example, reduce auditor involvement from audit assurance to review assurance or from review assurance to no assurance.

EXPANDING AUDITOR INVOLVEMENT WITH INFORMATION NOT NOW AUDITED

Users are divided over the usefulness of expanding the scope of audits to include new types of information not now audited. For example, only 57 percent of those who participated in the Committee's survey agreed that auditors should provide some level of assurance about disclosures of forward-looking information. Further, only 52 percent agreed that auditors should provide some level of assurance on non-financial business information disclosed by management. Participants responded to the questions in the context of current business reporting. It is unclear how they would have responded in the context of the Committee's business reporting model, which includes more non-financial operating and performance measurements.

Further, based on the Committee's work with its discussion groups, users appear to not support auditor reporting on MD&A. They have two concerns:

1. They fear that auditor involvement may discourage management from reporting subjective information that may be hard to verify but that is nevertheless important to users.
2. They question whether auditors have the intimate understanding of the business and skills necessary to audit management's discussion effectively. Users see MD&A as the place for management's perspective on the business, and they do not want outsiders interfering with the communication of that view.

Although users are not enthusiastic about expanding the scope of audits, one exception relates to internal control. They believe business reporting would benefit from increased auditor involvement in internal accounting controls. The Committee's discussion groups emphasized this point, as did the 1993 Association for Investment Management and Research Report, *Financial Reporting in the 1990's and Beyond.* Page 58 of that report states:

> . . . we advocate the continuous involvement of the auditor in the process that generates the financial information an enterprise disseminates externally. . . . we envision external auditors being substantially more involved than at present with the functioning of the internal systems that produce financial data for external consumption.

EXPANDING AUDIT REPORTS TO INCLUDE ANALYTICAL COMMENTARY

A majority of users support expanding auditor reporting to include some form of analytical commentary. Discussion group participants noted that auditors know more about a company than auditors communicate in their reports, and they hoped to benefit from that knowledge, particularly in areas that would assist them in evaluating the quality of a company's earnings. Users supported auditor commentary on the following:

- Audit scope and findings.
- The company's accounting principles in relation to alternative principles, particularly principles used by other companies in the same industry.
- Reasonableness of significant assumptions and estimates used by management in the preparation of financial statements.
- Risks related to realizing recorded assets.

Users were not unanimous in their support of auditor analysis, and individuals placed greater emphasis on different areas of potential comment.

RECOMMENDATIONS TO IMPROVE AUDITOR INVOLVEMENT WITH BUSINESS REPORTING

The Committee developed recommendations to improve business reporting through enhancing auditor association with that reporting. In developing those recommendations, the Committee considered users' needs for auditor association, alternative ways to meet those needs, and the costs and benefits of the alternatives. The Committee developed recommendations in four categories. Two address auditor involvement with the elements of the Committee's business reporting model. The third relates to analytical commentary in auditors' reports and the fourth deals with other matters.

RECOMMENDATION 1

Allow for flexible auditor association with business reporting, whereby the elements of information on which auditors report and the level of auditor involvement with those elements are decided by agreement between a company and the users of its business reporting.

As discussed under the Committee's comprehensive business reporting model, the Committee encourages flexible reporting based on the information needs of users. Under that concept, only certain elements of the model are reported, depending on users' needs for information as resolved through negotiations between users and companies.

The Committee concluded that the same flexibility concept also should apply to auditor association with the elements of the model that are presented. Under that concept, users and companies would negotiate to identify the elements of the model on which auditors would report and select the level of assurance the auditor would provide on each of those elements as well. For example, they could consider various mixes of assurance levels for different elements within the same business report. However, the level of assurance on the financial statements would set the maximum level of assurance possible on all other elements reported. Thus, if auditors did not report on financial statements, they could not report on any of the other elements of information presented in business reporting. Further, greater assurance cannot be provided in another element of business reporting than is provided on the financial statement element.

The Committee is not recommending required expansion of auditor involvement with business reporting. Rather, it recommends the flexible reporting concept for four reasons.

1. Users' needs for audited information differ. For example, users differ on the level of auditor assurance they perceive they need. Some need an audit, whereas others, under certain circumstances, would accept a lower level of assurance, such as a review, or no assurance at all. The needs for audited information differ depending on the particular circumstances such as the size of the company, its perceived riskiness, and experience and comfort with management. Users also differ over the usefulness of auditor association with information outside of financial statements. The Committee therefore believes that customized reporting is necessary to meet the diverse information needs of users.

2. The costs of providing audited information differ. Differences in costs largely explain why the marketplace accepts review reports or no level of assurance on financial statements rather than always requiring audit reports. Differences in costs of auditor association obviously affect the cost-benefit trade-off considered by users and companies. The Committee concluded that the cost-benefit trade-off is best decided by the parties affected by that trade-off rather than by standard setters.

3. The Committee's information about users' needs for audited information and the costs of providing that information are based on the current state of business reporting. Adoption of the Committee's reporting framework could significantly affect both the perceived need for auditor involvement and the costs of that involvement. It is impossible to predict how the cost and benefit trade-off will be affected in the future.

4. The Committee concluded that the level of auditor assurance selected for the financial statement element, if any, should determine the maximum level of assurance that could be provided on other elements reported. The auditors' work on financial statements and the related system of internal control provides the foundation on which other work is based. The Committee concluded that the level of assurance on elements outside of financial statements could be no stronger than that foundation. Thus, for example, without that foundation, the auditor could provide no assurance on information in other elements.

RECOMMENDATION 2

The auditing profession should prepare to be involved with all the information in the comprehensive model, so companies and users can call on it to provide assurance on any of the model's elements.

Current standards are not adequate to deal with the varying nature of information in the comprehensive model of business reporting. Current standards focus on audits or reviews of financial statements and the information in accounting records. However, the model includes information not derived from accounting records, such as business strategy. It also includes information that is more subjective than the types of information on which auditors now report, such as business opportunities and risks. Reporting on the various elements of the model, if requested, would require new standards and, in some cases, new skills for auditors.

The Committee believes that one standard setter, the AICPA Auditing Standards Board, should assume responsibility for new audit standards. The board traditionally has established standards for audits and focusing responsibility on a single standard setter offers the best opportunity for progress.

REPORTING ON OBJECTIVE INFORMATION IN THE COMPREHENSIVE MODEL

Much of the information in the comprehensive model is objectively verifiable, even though auditors currently do not report on that information. Further, some of the information is derived from the accounting records used to produce financial statements. Examples include the number of employees and the units of product sold.

To the extent possible, current standards should be retained. The Committee believes they can be used to guide auditors in auditing information that can be verified objectively. Further, auditors can report on that information following the reporting language used in audits of financial statements.

The Committee believes the existing standards are adequate for auditing and reporting on information in some elements of the model but not in others. The elements for which existing standards are adequate are:

- Financial statements and related disclosures.
- High-level operating data and performance measurements that management uses to manage the business.
- Directors, management, compensation, major shareholders, and transactions and relationships among related parties.
- Scope and description of business and properties.

REPORTING ON SUBJECTIVE INFORMATION IN THE COMPREHENSIVE MODEL

Some of the information in the elements of the comprehensive model is composed almost entirely of management's beliefs, intentions, and predictions; in many cases, there may be little objective evidence available (at least within practical bounds of time and costs) to support the veracity of those assertions. Further, auditors could have difficulty determining whether the disclosures are complete. The elements of the model that contain this type of information are:

- Reasons for changes in the financial, operating, and performance-related data and the identity and past effect of key trends.
- Opportunities and risks, including those resulting from key trends.
- Management's plans, including critical success factors.
- Comparison of actual business performance to previously disclosed opportunities, risks, and management's plans.
- Broad objectives and strategies.
- Impact of industry structure on the company.

For those types of information, existing audit guidance is not sufficient and new standards will be required. The Committee recommends a different level of assurance from the level provided for information that is verifiable objectively. For cost-benefit reasons, that assurance should be at a lower level.

More specifically, that assurance should be expressed using a ''reasonable basis for presentation'' and ''conformity with presentation standards'' approach in the style of current attestation standards. Under that approach, the auditor would report that the element is presented in conformity with the respective standards of presentation and that management has a reasonable basis for the underlying assumptions and analyses reflected in that element. In contrast, the audit of more objective information states that the element is fairly presented, in all material respects, in conformity with the applicable standards. This is not to argue that the Committee concluded the elements identified for reasonableness assurance are incapable of a fairness opinion; rather, it concluded the need to reach for fairness may be unnecessary. Given adequate implementation time, the Committee believes that users will be able to understand the differences in how elements are audited for fairness versus reasonableness based on differences in the inherent nature of the information being audited.

Appendix III includes an illustration of an auditors' report on the comprehensive model. That report illustrates the higher level of assurance for some elements and a lower level of assurance for others.

Some people have questioned whether auditors have the skills and expertise to be associated with information outside of financial statements. Some of the information on which auditors may be asked to provide assurance may be beyond the ability of current auditors to evaluate. Examples include disclosures regarding the likelihood of engineering achievements and predicting certain technological directions or evolution. In such cases, auditors may find it necessary to obtain skills beyond those traditionally required.

An analogy may be drawn to the U.S. General Accounting Office, an agency that employs many engineers, scientists, and others with skills in addition to or other than accounting and financial auditing. In conducting audits of federal programs, these skills and many others are necessary to design and perform effective, broad-scope audits. Auditing firms, in some cases, have developed groups of individuals with skills other than accounting and auditing. Examples include actuaries and operations research analysts whose skills already are being applied in unique audit situations.

The Committee acknowledges that new skills will be needed to audit the broader disclosures of the comprehensive model. Those added skills will require new ways of building auditing teams, planning and supervising their efforts, and reporting the results of their work. The need for better, broader skills should not be a limiting factor to providing more useful business reports that are capable of receiving audit assurance. The reverse is, in fact, more important: Auditor skills should be challenged, grown, and redirected constantly so auditors are capable of dealing with new types and forms of information.

STANDARDIZED OPINIONS

The auditor's opinions on the various elements of information in the business reporting model should be standardized, just as auditors' opinions on financial statements are standardized today. Standardized opinions are useful to users because they clearly state the auditor's conclusion. Users want and expect a conclusion by the auditor. Further, with standardized opinions, users easily can spot deviations from the standard — deviations that otherwise might be missed with non-standardized reporting.

The Committee considered earlier experience with non-standardized reporting, sometimes called ''long-form'' audit reports. Those reports included greater detail about procedures and accounting principles employed. The Committee concluded that the historical long-form report was not an acceptable alternative to a standardized opinion. Long-form reporting created several problems, the largest being ambiguity: readers were confused about the auditor's overall conclusion.

The usefulness of standardized reporting does not apply to auditor commentary. The objective of auditor commentary is not an opinion on the fairness or reasonableness of information in a reporting element. Rather, the usefulness of auditor commentary depends upon the auditor's unique insights in particular circumstances. Reporting that insight would require flexible not standardized reporting.

ALTERNATIVE ASSURANCE LEVELS

The Committee focused on the nature of reporting the maximum assurance on various elements of the comprehensive business reporting model. With the flexibility inherent in the comprehensive business reporting model, there is an opportunity to consider various mixes of assurance levels for different elements within the same business report. Further, given the varying nature of information contained in the elements, other levels or forms of assurance could be provided besides the audit and review levels currently available. The Committee did not develop conclusions about new levels of assurance because of time and resource constraints and in light of the recently established AICPA Special Committee on Assurance Services. However, the Committee suggests that the Committee on Assurance Services and the Auditing Standards Board pursue the subject using the Committee's business reporting model.

RECOMMENDATION 3

The newly formed AICPA Special Committee on Assurance Services should research and formulate conclusions on analytical commentary in auditors' reports within the context of the Committee's model, focusing on users' needs for information.

The model for audit reporting historically has divided responsibilities between preparers and auditors. The preparers make representations in financial statements; auditors give an opinion about whether the financial statements comply with generally accepted accounting principles. The preparers assert; the auditors attest. The reasons for this division reflect decades of development of ideas about auditor independence, materiality, legal liability, and other concepts that have been codified into rules on how auditors express an opinion on financial statements. The result is rules that create highly standardized reports. Departures from the standard language are easy to detect and meaningful. As a result, departures from the standard language frequently are viewed as "warnings" or "bad marks." Sometimes that is exactly what they are intended to be. The financial reporting community seeks "clean" opinions (reports that use only the standard language).

Some have asked whether auditors' reports must always be framed in such standardized terms. Undoubtedly, the auditor must conclude on the fairness of the financial presentation, but could or should the auditor also provide a subjective view of the matters audited? Could there be an "auditor commentary" as well as a standardized audit report? The idea is not new; however, the Committee debated the question within a new context — the Committee's recommendation for a comprehensive business reporting model.

The following discusses the results of the Committee's research about users' needs for auditor commentary. It highlights the benefits of auditor commentary and the barriers and the implementation concerns for that type of reporting.

The AICPA Board of Directors formed the Special Committee on Assurance Services to consider the broad area of auditor assurance and make recommendations for changes to meet users' needs. The Committee supported the board's decision. The new committee will delve into auditor activities and related users' needs beyond the Committee's work. The following discussion sets forth findings so the new committee can enhance its consideration of auditor commentary based on what the Committee has learned.

OBSERVATIONS ABOUT USERS' NEEDS

Users with whom the Committee met were divided in their support of auditor commentary, and individual users placed greater emphasis on different areas of potential comment. Furthermore, it is not clear whether users were interested solely because they sought the auditors' viewpoints or because current business reporting, including MD&A, was not providing needed information the auditors' comments might disclose. The comprehensive model was designed to provide more useful information, both qualitative and quantitative. The Committee did not research user attitudes and needs for auditor commentary within the context of the recommendations for the comprehensive model. Consequently, more research is required to determine the user need for auditor commentary in light of comprehensive model disclosures.

BENEFITS OF AUDITOR COMMENTARY

Independent Perspective. The independent view of the auditor constitutes useful information in addition to the reasonable views of management. Management's goals and motivations differ from those of the auditor. That is appropriate. Management occupies a position of stewardship and (naturally) believes in the programs and activities it has or will initiate. The auditor occupies a different position and has a different perspective. The auditor is more objective, dispassionate, and skeptical, for example, about the position and prospects of the company.

Even if management conforms its views to those of the auditor and makes representations consistent with the auditor's views, it is important to establish and report the auditor's independent observations that best characterize the situation and not merely express auditor assurance that management has a reasonable basis for its reported views. This distinction underlies the case for requiring that the auditor formulate and communicate an independent view about the defined circumstances on which professional standards would require comment.

Valuable Information for Users. Whatever opinions the auditor develops as a result of procedures performed could provide more to users than they are receiving currently. Moreover, the perceived independence of auditors is enhanced when auditors render clean opinions but also offer observations that help users understand the subjective matters auditors had to evaluate in reaching those clean opinions. Auditor commentary may alleviate the perception of certainty surrounding financial statements by highlighting the judgments inherent in business reporting.

BARRIERS AND IMPLEMENTATION CONCERNS OF PROVIDING AUDITOR COMMENTARY

Impact on Independence and Legal Liability. Auditors have a unique role in business reporting. It is widely accepted that analysts may differ in their interpretations and analyses of business reports. Inevitably, analysts will be wrong, at least some of the time. Auditors, on the other hand, are *not* expected to be wrong. Having auditors expand reporting to include commentary could raise user concerns that auditor decisions about fairness would be influenced by previous comments. Independence is key to the value of auditing. Auditor commentary could erode independence.

Legal liability related to auditor commentary must be tolerable. Auditor commentary related to financial statements would blur the distinction between preparer-asserter and auditor-attester and thereby may impose more reporting responsibility and legal liability on the auditor. Further, auditor commentary on areas outside of financial statements may expose the auditor to new and untested areas of legal liability.

Impact on the Content of Management's Report. It may be unlikely that auditors could provide meaningful commentary that would not otherwise appear in management's report. Currently, auditors consult with management about the content and readability of disclosure both in and outside financial statements. It may be difficult for an auditor not to propose useful observations to management and, instead, include them in an auditors' report. Accordingly, auditors may not be able to add information to a business report. Instead, the result may be additional standardized language or repetition of management's analytical comments.

Auditor commentary would require a substantial, and perhaps cultural, change by management in the relationship and expectations of the role of the auditor. For example, the presence of auditor commentary in today's environment may be considered by management to be threatening, undermining the credibility of management's report. And when there were honest differences in analytical views between management and auditors, users would have to be able to understand how reasonable people can have different interpretations of the same facts.

If there is an information need that auditor commentary could fulfill, the question that could be raised is why accounting standards, including the Committee's comprehensive model, do not impose that reporting obligation on management in the first place. Management may be in the best position to make disclosures. If auditor commentary is needed to fill gaps left by management's report, then accounting standards could be revised to clarify management's obligation.

New Standards and New Skills Needed. Standards would have to be developed to govern this reporting. Auditor commentary should not be essentially free-form. There would need to be a standard set of judgmental areas, such as choice of accounting principles, significant estimates, and matters affecting the quality of reported earnings, to be addressed in each report. These would be guidelines at a high level.

Standards setters would need to consider whether auditor commentary is required or optional. Some believe this reporting would not be viable unless it was required. That is, by making the report required, the profession would invest the training and quality control effort to make the reporting useful. Others believe imposition of these reporting requirements would be contradictory to the notion of a negotiated scope of assurance recommended by the Committee.

The costs of auditor commentary are unknown. Some speculate that the marginal costs are small because the information already has been obtained as part of the existing audit process. The auditor already responds to similar requests from audit committees indicating that such commentary can be provided at acceptable cost. Others argue that audit work is not currently designed to support reports of this nature to outside third parties. For example, under current audit standards, auditors may challenge estimates in financial statements using methods that are different from those used by the preparer. By these means, the auditor can judge whether the preparer's estimate is reasonable but may not be able to explain how variations in the preparer's approach could have changed the estimate materially. Until standards for auditor commentary are proposed and field tested, the question of cost is unanswerable.

Auditor commentary may require new skills within the audit team, depending on the nature of the comments required by standards. The auditor may need different training, and new types of audit team members may be needed. This, in turn, would have implications on auditors' quality control procedures and standards.

CONCLUSION

The Committee expects the AICPA Special Committee on Assurance Services to continue the process of research and exploration of auditor commentary. Much more must be understood about users' possible need for the information, the nature of this type of reporting, and whether the significant barriers and implementation concerns can be resolved. The Committee urges the Special Committee on Assurance Services to research and formulate its conclusions within the context of this Committee's comprehensive model, with a focus on the information needs of users.

RECOMMENDATION 4

The profession should continue its projects on other matters related to auditor association with business reporting.

During its study of the information needs of users, the Committee gathered useful information about reporting on internal control, concerns about the credibility of business reporting and pressures on auditor independence, and responsibility for detecting fraud. The AICPA and others currently have major projects under way specifically addressing each of those areas. To avoid duplication of effort and to focus its efforts on areas not otherwise being addressed, the Committee excluded those areas from the scope of its work. However, the Committee supports work in those areas and has forwarded what it learned from users to the respective organizations. The Committee recommends that they consider what the Committee learned in forming their recommendations.

AICPA Special Committee on Assurance Services' Consideration of Recommendation of AICPA Special Committee on Financial Reporting

The Special Committee on Financial Reporting (SCFR) in November 1994 directed one of its recommendations to the Committee:

> *The newly formed AICPA Special Committee on Assurance Services should research and formulate conclusions on analytical commentary in auditors' reports within the context of the SCFR model, focusing on users' needs for information.*

The Committee has done so. Its conclusions follow.

The Committee sees a vital role for CPAs in providing additional services that yield more relevant information for decision makers. Accordingly, it has recommended development of three services that would address unmet user needs.

- Assurance on comprehensive risk assessments.
- Assurance on relevant performance measures.
- Assurance on systems reliability.

The Committee believes that, initially, these three services will be used internally by managements, boards, audit committees, and other internal users. But it recognizes that the services could ultimately be made available to external users. The Committee believes that, after the services have become more fully developed and established, third parties will demand these services because they will find the information essential for effective decision making.

These three new assurance services, taken together, could provide highly relevant information: Useful measures of business risks provided on a continuous or regular basis. The Committee believes that these services will be demanded — first by internal users and eventually by outsiders — because they are valuable. But it believes that they should not be merely appended to the existing audit model or imposed by standards.

Although the Committee agrees with the SCFR's goals, it believes that including analytical commentary in auditor's reports is not the best way to achieve them.

Users have valid concerns about the reliability and relevance of financial data they receive. The SCFR suggested additional auditor commentary as a means of ameliorating those concerns. However, it noted that it was not clear whether users were interested in auditor commentary or improved business reporting. In fact, the SCFR's data indicated that two thirds of users believed that the standard three-paragraph audit report provides what they need to know from auditors.

The Committee believes, as well, that the auditor's report is an anomalous place to compensate for deficiencies in GAAP financial statements. In the short term, the Committee supports actions to improve the usefulness of the financial statements. It has recommended, among other things, that the AICPA monitor the effectiveness of SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties*, in providing needed disclosures and that accounting standard-setters review the adequacy of disclosures of financial distress. In its work on the existing service, the Committee has noted that the vitality of the financial reporting/auditing model will depend on the broadening of the information disclosed and the ability of auditors to overcome the tough problems such as finding fraud.

Produced by the AICPA Special Committee on Assurance Services

The Committee's Recommendations

During the Committee's work, its observations and analyses suggested that certain actions should be taken to overcome barriers to achieving its vision for the future of assurance services and to help practitioners take advantage of the potential future opportunities. As a result the Committee made a series of recommendations to institutions, firms, and individuals. The Committee has no standard-setting authority and cannot require that its recommendations be implemented or acted on. However, it believes that that they are helpful and strongly advises that they be considered seriously and implemented.

The Committee made recommendations to the following ***institutions*** (see summaries of recommendations):
American Institute of Certified Public Accountants
Financial Accounting Standards Board
Securities and Exchange Commission

It also made recommendations to ***individuals*** as follows (see the small and medium CPA firm perspectives):
Practitioners in small firms
Practitioners in medium firms

It made recommendations to the following ***organizations*** (see the small, medium, and large CPA firm perspectives and the academic perspective):
Small CPA firms
Medium CPA firms
Large CPA firms
Universities

Produced by the AICPA Special Committee on Assurance Services

Summary of Recommendations for the AICPA

The Special Committee on Assurance Services has discussed actions it believes the AICPA should take in the future to help its members deal effectively with change and offer new assurance services. This section summarizes the recommendations made. It discusses only recommendations directed to the AICPA, not those proposed for firms, individuals, or others.

Identification and Delivery of New Services

Assurance Services Committee. The AICPA should create an Assurance Services Committee to perform on an ongoing basis the type of work done by the Special Committee on Assurance Services. It should be a standing committee whose members are a mix of market-oriented partners in local, regional, and national firms actively involved in providing assurance services, visionaries, and other nontraditional members. The committee's charge should include collecting and sifting through information to identify new or growing needs for assurance services.

The committee should make preliminary assessments of services that show potential for near-term development. Considerations will include market size, market attractiveness, CPA competitive advantages, need for CPA-developed standards, and controllability of legal risk.

The committee should continue the communications effort begun by the Special Committee on Assurance Services. It should consider articles, CPE, and similar efforts to help practitioners understand the changing environment, adapt to changes, and succeed in delivering assurance services. It might consider publishing success stories in the *Journal of Accountancy*.

Implementation status: The AICPA has created this committee.

Service Development Task Forces. For opportunities that show great promise, the AICPA should create task forces to actually develop the services. The task forces should bring together firms or individual CPAs who want to develop the service for their own practices. The task forces should be charged with the development of a business plan for refining the service into a delivery mode.

If standards are required, the task force will communicate with and cooperate with appropriate senior technical committees or other working task forces to assist in their formulation.

The task force will develop or oversee the development of measurement criteria, as needed. The task force might also create strategic alliances with industry or other specialized groups to create standards or market access.

Implementation status: Service development task forces are expected to be appointed shortly to develop opportunities identified by the Special Committee on Assurance Services.

Creating and Distributing Guidance. The Assurance Services Committee should be granted authority under the Code of Professional Conduct to establish measurement and reporting standards for assurance service engagements (where such authority has not already been granted to others, such as the FASB). To serve as basis for standard-setting in this area, consideration should be given to when the AICPA should set criteria and when criteria identification should be left to individual practitioners. It should also consider what is needed in a set of criteria. Specific criteria should be established where needs have already been identified such as electronic commerce and health care effectiveness. In addition, the AICPA should consider the development of standardized measures of nonfinancial data that relate to the financial statements.

The Committee believes that, although detailed performance standards are not necessary at this time, the requirement for independence in assurance services should be adopted promptly. Accordingly, the Assurance Services Committee should adopt a requirement for independence for assurance services and adopt the concept of assurance independence articulated in Assurance Independence: An absence of interests that create an unacceptable risk of material bias with respect to the quality or context of information that is the subject of an assurance engagement.

Service development task forces should develop the procedures and any reporting guidance in sufficient detail for practitioners to be able to understand and implement the services on their own. In addition, the AICPA should offer education, practice guides, and practice aids as appropriate.

Distribution of guidance to small firms should be accomplished through a variety of already established channels. Many smaller firms and sole practitioners might have limited ability to acquire the competencies necessary to provide the new services. The AICPA should encourage development of such training and aids through CPA associations, state societies, CPA-oriented publishing houses, and franchisers.

Implementation status: Practice aids for three services identified by the Special Committee on Assurance Services have been developed by Practitioners Publishing Co. [www.ppcinfo.com] The AICPA plans at least four CPE courses on the work of the Committee.

Creating Markets

The Institute should help enhance CPAs' skills in identifying clients' decision-making needs and in creating and providing assurance services to meet them. This might be accomplished through development of CPE or other materials or by directing members to resources available through others.

The Institute should have more direct contact with users. By assertively probing for information about user needs, the Institute can make assurance services more valuable. Such information can be used, for example, to identify the need for new or changing standards or guidance. One way to open the AICPA to user input is through direct links in the AICPA website. The website should have sections that focus specifically on the needs of users: they could provide important information to decision makers, show how CPAs can provide useful services, and link users with CPAs.

The Institute should create measurement systems and actively seek feedback from CPAs and users of their services to determine:

- How widely the opportunities identified have been disseminated to the members.
- The actual market size for new services.
- Public acceptance of new CPA services.
- Opportunities and threats related to existing services.
- How well existing standards, such as auditing standards, meet the needs of both third-party users and members.

In some cases, individual CPA firms working independently might not be effective in creating new markets for needed services because they lack visibility, consistency of output, or public awareness of the advantages of the services. The AICPA should become involved with branding new services as CPA services. Factors that may contribute to dominant brand association include exclusivity by regulation, accreditation, establishment of relevant standards, and image enhancement.

To achieve brand dominance the AICPA should align with CPA firms who are interested in developing identified assurance services.

Accreditation may be determined to be a vehicle to position CPAs as preferred providers of a service or to brand an opportunity as a CPA service. The AICPA should study the potential benefits of accreditation for the services identified by the Special Committee on Assurance Services. In considering the general issue of accreditation, the AICPA should consider including customer feedback as a component in accreditation or reaccreditation criteria in addition to education, experience, and examination.

Implementation status: An Institute committee that will study the topic of accreditation is currently being formed.

Information Technology

To adequately serve the future needs of clients and third-party users, CPAs must be technologically adept. Similarly, to serve its members' needs the AICPA must make better use of technology.

Increasing Competencies Within the AICPA. AICPA staff, especially those dealing with Institute committees, should understand and use technology. The staff needs to be sufficiently conversant with new technologies to understand the implications of technology; recognize problems caused by, and solutions suggested by, technology; and use technology in dealing with members.

The AICPA Government Relations Office in Washington should be staffed with one or more individuals with sufficient competence in information technology to be able to identify relevant regulatory issues.

All AICPA committees should have members with strong technology skills. The requisite technology skills go beyond knowing how to use a computer to do an audit and even beyond knowing technical configurations and programming issues. Committees should include members with an in-depth knowledge of how technology affects business relationships and processes. For example, current trends in technology affect the hierarchical structure in modern organizations, empower employees by making information more accessible, and change how companies interact with each other.

The AICPA should use technology to increase the efficiency of committee operations. For example, the use of e-mail, video conferencing, or groupware (such as Lotus Notes) can be more efficient than traditional face-to-face meetings requiring travel. AICPA meeting facilities should be set up to accommodate the use of technological tools. Changes in facilities might range from use of communications/satellite technology to addition of electric and telephone outlets for laptop computers at meeting tables.

Competencies Within the Profession. The Institute must create a sense of urgency regarding the need to expand CPA competencies to deal with the growing information intensive environment. It should initiate an educational awareness and communications program for the membership. The program should focus on how businesses use technology in their basic operations (for example, to create markets or increase value) and the ramifications for CPAs rather than merely focus on using specific tools such as spreadsheets or databases.

The AICPA should consider developing educational materials on information technology aimed at small firms to help them increase their knowledge and skills. The materials should help practitioners understand client needs and how they can help meet them.

Performance guidance is needed in the following areas:

- Timely auditor involvement with the content of databases and the processes and systems that generate content.
- Auditor involvement with electronic commerce.
- Auditor association with electronic disclosure of financial information.

Implementation status: A development task force will be created for electronic commerce. An auditing interpretation on the auditor's responsibility for information in web sites that contain audited financial statement has been developed.

Monitoring. The AICPA should evaluate its trends monitoring process as it relates to all of the technologies implicit in an information intensive culture.

The AICPA Washington office should be in a position to recognize opportunities and threats embodied in attempts to control or regulate the information highway. The AICPA should be in a position to monitor activities that do not relate directly to the CPAs' traditional role, but may contain opportunities or threats in their future role.

Renewing and Extending the Audit

Improving the auditor's ability to detect fraud will continue to be an important priority for the profession. The Committee has not concluded that changes are needed in the auditor's responsibility for fraud detection. But practitioners need to be better armed to detect fraud. The Auditing Standards Board has taken a significant first step in this direction with its issuance of a Statement of Auditing Standards on the auditor's detection of fraud in a financial statement audit. There are also plans for helping auditors understand and implement the standard and provide implementation tools. The AICPA should continue to be involved in helping CPAs become more effective in this area by developing or distributing even more advanced weapons, such as comprehensive case studies and guidance on bringing technology to bear in fraud detection.

Guidance is needed on how information technology and systems design can prevent fraud and illegal acts. If the profession is to begin to provide assurance on the content of databases — eventually moving to continuous assurance — auditors must begin to focus on the effectiveness of preventative controls. Concentration on detection controls alone is likely to be insufficient to provide assurance in such cases.

Reporting when companies are in financial distress should be brought more into line with public expectations. The AICPA should consider whether:

- Financial reporting standards require adequate disclosures when there is financial distress but bankruptcy or discontinued operations is not imminent.
- SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties*, is effective in providing adequate information about risks and uncertainties.

- SAS No. 59, *The Auditor's Consideration of an Entity's Ability to Continue as a Going Concern*, should be enhanced to address situations in which there is financial distress, but there is not substantial doubt about the entity's ability to continue in existence for one year from the balance sheet date. Consider also whether auditors should be provided with more how-to guidance on identifying distress situations, considering the adequacy of mitigating information, testing future-oriented assertions, and making decisions in this area.
- Additional how-to guidance is needed to help auditors improve testing of risks, uncertainties, and estimates.

Additional educational materials could be developed to help firms increase their knowledge and skill in performance auditing and other assurance services for business, nonbusiness, and governmental units.

The AICPA should consider conducting a study to examine various "credit scoring" models used by lenders and develop appropriate forms of assurance that smaller CPA firms might provide on significant data that drive those models.

The Committee believes that agreed-upon procedures are intrinsically in concert with the concept of customer-orientation: providing customized services that users value in place of standardized one-size-fits-all services. Accordingly, it believes their use should be encouraged. The AICPA should review existing standards on agreed-upon procedures to determine whether the requirements or tone of the standards inadvertently discourage their use.

The AICPA should consider creating a benchmarking database for use by CPAs in assisting clients assess their performance. The database could also be used to enhance the effectiveness of analytical procedures.

Implementation status: We understand the Institute is conducting a feasibility study of creating a performance measures database.

Standard-Setting Process for Audits and Other Assurance Services

The standards-setting process should be redesigned to cut cycle times and accommodate the rate of change in financial markets and electronic information.

The AICPA's criteria-development process should be quick, but should not sacrifice the elements that give the criteria validity and overall quality. The process should envision a continuous improvement in criteria rather than an attempt to create a definitive set of criteria before issuance. Feedback loops will allow improvement over time and create higher value. The Institute can use the web to communicate ongoing considerations with interested parties. This can instigate user feedback and justify a less extensive formal exposure of proposed criteria. See the appendix to this set of recommendations for a further discussion.

It may be inefficient for standing committees to develop standards. The Auditing Standards Board, for example, could function as an oversight and approval body that identifies issues and approves standards. However, actual standards development might be undertaken by specially formed task forces whose makeup is responsive to the particular needs in the circumstances and might not include ASB members.

The exposure draft and comment process can be sped up by making exposure drafts and other public documents available on the Internet and collecting input via bulletin boards, electronic town meetings, and on-line dialogs between developers and those who wish to comment or ask questions.

The Committee notes that the AICPA has taken a first step in this direction by putting EDs on the Accountants Forum and AICPA Online and receiving comments electronically. It held an on-line conference regarding the proposed SAS on fraud.

Measuring Competencies

The AICPA should focus on enhancing the competencies of members. Its CPE catalog, for example, should identify specific competencies that courses concentrate on. It should point members to alternative resources when the Institute's materials don't address necessary competencies and good materials already exist on the market.

The AICPA should research the supply and demand of people hired by CPA firms. While the Institute already studies the market for new graduates, a significant portion of people hired by CPA firms do not come directly from university accounting programs. To understand the trends in the profession, the AICPA should gather information about how many people are hired by firms and what portion of them are new accounting graduates, experienced accountants, and nonaccountants.

The Uniform CPA examination should continue to test the key knowledge and skills CPAs need to practice public accountancy competently. Accordingly, it should be expanded to cover the growing area of assurance services, to the extent that services affect public reliance.

Legal and Regulatory Issues

Ownership and Capital Structure of CPA Firms. The Institute should study whether the limitations on ownership structure of CPA firms will unduly inhibit the profession's growth. The Code of Professional Conduct and state accountancy laws, for example, limit ownership of firms by nonCPAs and by CPAs who are not actively involved as members of the firm providing services to the firm's clients as a principal.

Litigation Risk. The risk of burdensome litigation for new assurance services is unknown, but acts as a deterrent to providing new services. AICPA should consider expanding the tort reform effort to include assurance services. It should also identify the risks (for example, actual litigation and whether the professional liability insurance carriers cover these engagements) and communicate its findings to members.

Location. It is unclear what regulatory model will be used when CPAs provide service over the Internet and the physical location of the CPA bears no relation to the location of the information, its preparer, or the user. If states overregulate in this area, opportunities for electronic distribution of services might be stifled. The AICPA should study this issue.

Communications and Publications

The AICPA should use its electronic media to deliver products and services, and to communicate with its members. The Committee notes that the AICPA already has begun using the Accountants Forum and web site for these purposes and that plans are in place to enhance the capabilities in this area.

The Institute's web site is becoming a primary source of information for members. AICPA committees should consider developing materials specifically for the site — taking advantage of its unique interactive and hyperlink capabilities — rather than producing traditional paper documents and storing them electronically on the web.

Examination of AICPA publications in light of new technologies might indicate a substantial inventory of published documents that require modification or replacement. We understand the AICPA has already undertaken a review of its publications for relevance.

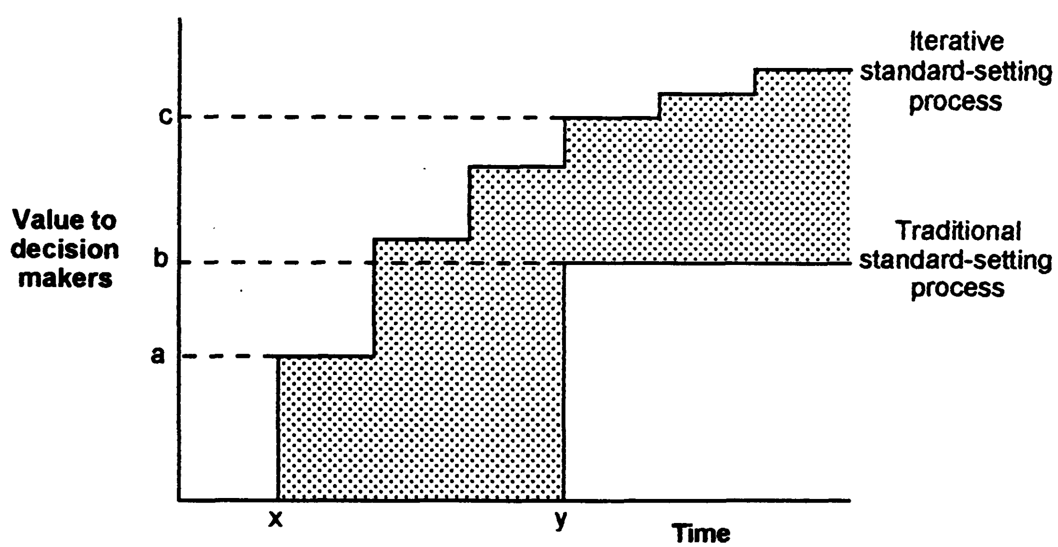
Produced by the AICPA Special Committee on Assurance Services

Appendix: Alternative Standard-Setting Strategies for Measurement and Reporting Criteria

The Special Committee on Assurance Services has pointed out that new assurance services will develop in competition with non-CPA providers (as the statutory franchise generally restricts only financial-statement audits to CPAs). In a competitive environment, speed-to-market is a key determinant of success. The accounting profession, historically protected by the franchise and therefore from pressures for speed in standard setting, developed a standard-setting culture that placed more value on deliberation than on speed. In the competitive environment of new assurance services, the Special Committee on Assurance Services recommends that standard-setting processes for measurement and reporting be accelerated considerably.

One strategy is to use an iterative method of standards development that issues standards as soon as value can be provided to decision makers (by improving the quantity or quality of information) with the expectation that improvements will follow and may even be frequent. This is analogous to the software development model. A software development company assesses user needs and promptly provides a product that meets a significant user need in order to try to dominate the market for a new application type. The company then receives constant feedback from users and enhances the product. Release 1.0 is followed by release 1.1 (which corrects problems) and, in due course, by release 2.0 (which adds new functions). The improvement process is never complete in a competitive market.

Alternative Standard-Setting Strategies



CPAs, who are accustomed to the slower pace of change in their historical franchise market, may criticize the "lower quality" of standards that are issued more quickly than the present standard-setting model can achieve. They may disparage such early standards. In terms of the above graphic, they might compare the value of rapidly issued standards (a) unfavorably with the value of standards issued after lengthy consideration (b). However, the iterative standard-setting process results in continual improvement in the value created for users as a result of feedback and experience (and the infrastructure for feedback would be a necessary component of the standard-setting process design). The more relevant comparison is the value created by the traditional process (b) with the value *at that time* (y) created by the iterative process (c). This comparison is much more favorable to the iterative process.

The gray area in the graphic represents the cumulative incremental value to decision-makers from the iterative process — an increment that is always positive after time x (the date of issuance of the first iterative standard) and keeps growing thereafter.

An objection that may be raised against the iterative method is that it could exacerbate "standards-overload." For example, the graphic illustrates six releases under the iterative strategy vs. one under the traditional strategy. However, such a comparison may be misleading because, for example, the typical FASB standard is followed by interpretations, both formal and informal. In principle, the iterative method should be easier for practitioners to follow because the changes would be in response to user needs and thus more likely to be practical, logical, and functional. In contrast, the traditional method sometimes creates illogical outcomes and arbitrary rules that are difficult for practitioners to internalize because they do not seem grounded in practicality and user needs.

Summary of Recommendations for the FASB

The Special Committee on Assurance Services focused primarily on the actions that CPAs — and the AICPA — should take to reinvigorate the auditing function. During its consideration of the future of the financial statement audit, it identified certain actions that the Financial Accounting Standards Board could take to improve the value of audited financial statements. This section summarizes those recommendations.

Expansion of the Business Reporting Model

Historical financial measures (GAAP) often do not meet managers' decision-making needs. In response, companies are rapidly designing and implementing internal performance measures that go far beyond GAAP. The AICPA Special Committee on Financial Reporting concluded that many of these same performance measures would be valuable information to external parties in evaluating business enterprises:

> "Business reporting must...focus on factors that create longer term value, including non-financial measures indicating how key business processes are performing" (Special Committee on Financial Reporting, *Improving Business Reporting*, p.5).

The Committee's research on customer needs supports the findings of the Special Committee on Financial Reporting, and the Committee urges the FASB to consider expanding business reporting in the directions the Special Committee on Financial Reporting recommended.

Reporting When Companies Are In Financial Distress

Existing auditing standards require the auditor to provide an additional paragraph in the audit report when the auditor believes that there is substantial doubt about the client's ability to continue as a going concern for one year beyond the balance sheet date. The standards also create financial-statement disclosure requirements in these situations. These requirements are imposed on auditors, in part, to compensate for limitations in financial reporting.

The Committee believes that management should have a responsibility to provide information and analysis users need to evaluate an entity's financial situation, including its ability to continue as a going concern. The FASB should consider whether the financial reporting requirements of SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties*, provides users with sufficient early warning information regarding existing or expected financial distress.

Recommendation to the SEC

The Special Committee on Assurance Services focused primarily on the actions that CPAs — and the AICPA — should take to reinvigorate the auditing function. During its consideration, it identified one action that the Securities and Exchange Commission could take to improve the value of audited financial statements. This section summarizes that recommendation.

Encouragement of CPA Involvement with a Wide Array of Information

The SEC should look positively on CPAs' efforts to broaden their service offerings that improve information for decision making. Improvements in the quality of decision-making information benefit the economy and social accountability. Auditors have traditionally contributed by improving the usefulness of financial statements. But there are many other ways in which CPAs might contribute, because the information needed for decisions that maximize economic growth goes well beyond financial statements.

Investors and creditors use information other than what is in financial statements, as the breadth of SEC filing requirements illustrates. The benefits from improved decision-making information from traditional services were never limited to external parties, benefiting management as well as investors and creditors. If the primary purpose of an engagement is to improve the reliability and relevance of information and independence is maintained, the public benefits from the CPA's service, and the engagement type should be encouraged.

Origin of the Committee: The 1993 Audit/Assurance Conference

The Conference was arranged by the AICPA and held in Santa Fe May 4-6, 1993. It considered that in recent years demand for audits and other attest services had declined and users of the services had expressed dissatisfaction with their scope and utility. It analyzed why the audit/assurance function had come to this juncture and developed a broad plan for shaping the future of assurance to enhance its value.

The Audit/Assurance Conference was attended by several future members of the Special Committee on Assurance Services, including its future Chair. Other participants were professors, AICPA staff members, government officials, and a staff member of the CICA. The variety of practices represented by the participants (from national, regional, and local firms) was later echoed in the make up of the Special Committee on Assurance Services, as was membership by professors and by a GAO official and participation in the Committee's work by Canadian Chartered Accountants.

Continuities with the Special Committee

Perhaps the most important continuity between the Conference and the Committee was that both took a customer focus. As the Conference report stated, "the assurance function should place a renewed emphasis on meeting users' needs." In addition, like the Committee, the perspective in Santa Fe was forward-looking, and the goal was to broaden the assurance function. Like the Committee, the Conference concluded that relevance services should be developed and that assurers should focus on a wider array of information and information processes. The report allowed that expanding the assurance function to encompass the relevance of information could involve auditors in originating information for others or supplementing information provided by others.

The barriers to achieving the Conference's vision were similar to those the Committee has identified as obstructions to vigorously expanding assurance services: practitioners' mindset, competency requirements, competition, and litigation, for example.

The Conference called for a "leadership team" to develop a strategic plan for an expanded assurance function. In other words, it called for follow-on work on the issues it defined. The AICPA gave that challenge to the Special Committee on Assurance Services.

Produced by the AICPA Special Committee on Assurance Services

Charge to the AICPA Special Committee on Assurance Services

The Board of Directors of the American Institute of Certified Public Accountants has authorized a Special Committee on Assurance Services and charges it as follows:

The Special Committee shall analyze and report on the current state and future of the audit/assurance function and the trends shaping the audit/assurance environment, focusing on the current and changing needs of users of decision-making information and other stakeholders in the audit/assurance process and how best to improve the related services provide to those parties. In formulating recommendations for improvement and ideas for implementation the Committee shall balance practicality, vision, and the need for change the study reveals.

The scope of the analysis of the state of the audit/assurance function and environmental trends shall include, but need not be limited to, the economics of attestation, its social contribution, the influence of information technology, the attributes of information that users might desire assurance about, and the audit/assurance function's regulatory structure. In considering trends shaping the audit/assurance environment, the Committee shall take a long view (e.g., five to ten years or longer).

The Committee shall consider whether the definition of the audit/assurance function should be modified or supplemented and whether the profession needs an additional set of concepts. It shall also consider the implications of potential changes in the audit/assurance function for independence, professional skills, and professional education.

The Committee shall consider the recommendations of the AICPA's Special Committee on Financial Reporting and those of the AICPA's Santa Fe Audit/Assurance Conference (May 1993).

The Committee shall be alert to needed research, performing what it is capable of and commissioning from outside parties what requires more intensive labor and/or specialized research skills. When it is consistent with the Committee's defined purposes, it shall publish its research findings in advance of its final report.

The Committee shall be alert to the need to expand its inquiry and, with Board's approval, to modify the scope of its study, analysis, and deliberations as necessary to achieve its defined purposes.

The Committee shall not function as a standard-setting body. Some of its recommendations may in time be considered by standard-setting bodies, but in such instances nothing done by the Committee shall restrict the mandates, authorities, due process, and obligations of any such standard-setting body.

The Committee shall make an interim report at the Fall Council Meeting in 1995 and a final report at the Fall Council Meeting in 1996. When it is consistent with the Committee's defined purposes, it shall make recommendations, communicate with the membership, and/or initiate other appropriate actions (subject to clearance by the Board or, on its behalf, the Chairman) in advance of the completion of the final report, so that implementation can begin in advance of the final report.

[Approved by the Board of Directors — April 22, 1994]

Members and Other Participants AICPA Special Committee on Assurance Services

The following individuals contributed to the work of the Special Committee on Assurance Services.

Members

Robert K. Elliott [relliott@kpmg.com], *Chair* — Assistant to the Chairman, KPMG Peat Marwick LLP. He has at various times headed technology strategy, audit research, and audit policy formation for the U.S. firm and was instrumental in harmonizing worldwide policy after the Peat Marwick International-KMG merger in 1987.

Mr. Elliott is a member of the AICPA Board of Directors, governing Council, and Strategic Planning Committee. He is a past member of the AICPA Future Issues Committee, Auditing Standards Board, and Special Committee on Financial Reporting. He is also a past vice president of the American Accounting Association and past member of its Executive Committee, Council, and Accounting Education Change Commission.

His publications, as author or co-author, include five books and more than sixty articles. Mr. Elliott has an AB from Harvard College and an MBA from Rutgers University.

Jay D. Brodish [Jay_Brodish@notes.pw.com] — National Director-Auditing Services, Price Waterhouse LLP. Mr. Brodish has been a partner of Price Waterhouse since 1978. He was partner in charge of the Philadelphia Audit and Business Advisory Services practice from 1991 to 1993.

Mr. Brodish received his BS from Lehigh University.

Robert L. Bunting [Bobb@mossadams.com] — President, Moss Adams. He has been president of Moss Adams since 1981; before that he was head of the firm's consulting division. He also serves as vice chairman of Moores Rowland International. He is on the Board of Directors and chairman of the Audit Committee of Accountants Liability Assurance Corp.

Mr. Bunting has served on the AICPA Board of Examiners (Chairman), Board of Directors and its Audit Committee, SEC Practice Section Executive Committee, Special Committee on Standards of Professional Conduct for CPAs, and Practice Group B Advisory Committee. He has also served as president of the Washington Society of CPAs.

Mr. Bunting is a graduate of the University of Idaho.

Brian P. Crowley [Crowleyb.op@gao.gov] — Assistant Comptroller General for Policy, U. S. General Accounting Office. Mr. Crowley has been with the GAO for over 30 years.

Mr. Crowley serves on the AICPA Members in Government Committee and is Chairman of the Board of External Auditors for the Organization of American States.

He received his bachelors degree in accounting from Fairfield University. He has also attended senior executive education programs at the Federal Executive Institute, Dartmouth Institute and the Kennedy School of Government at Harvard University.

James G. Hooton [James.G.Hooton@arthurandersen.com] — Managing Partner-Audit and Business Advisory Services, Arthur Andersen Worldwide Organization. He has been a partner of Arthur Andersen since 1976. Before assuming his current role in 1989, he was partner in charge of the Houston office audit and business advisory service practice.

Mr. Hooton is a member of the AICPA's SEC Practice Section Executive Committee.

He received his BBA and MBA degrees from Texas A & M University.

Gordon M. Johns [Kjennings@dttus.com] — Professional Practice Director, Deloitte & Touche LLP's San Diego office. Mr. Johns has been a partner of Deloitte & Touche since 1970. He has worked in the Los Angeles, Executive, Pittsburgh, and San Diego offices.

He has participated in the AICPA's Accounting Objectives Study Group (Trueblood Committee) and in developing Haskins & Sells's position paper regarding the Study of Establishment of Accounting Principles (Wheat Committee).

Mr. Johns received his BS from the University of Illinois (Champaign-Urbana).

William R. Kinney, Jr. [KinneyW@mail.utexas.edu] — Professor, University of Texas at Austin. Professor Kinney has taught accounting and auditing since 1967. He has experience with six national CPA firms, the SEC, and the GAO. He has taught at Oklahoma State University, University of Iowa, University of Michigan, INSEAD, and currently holds the Charles and Elizabeth Prothro Regents Chair in Business and the Price Waterhouse Auditing Fellowship at UT-Austin.

He has served as Director of Research for the American Accounting Association and was editor of the *Accounting Review*. He has served on various AICPA committees, including the Auditing Standards Board, and on the Financial Accounting Standards Advisory Council of the FASB. He currently chairs the AAA's Litigation Committee.

Professor Kinney is the author of more than 50 articles. He received his BS and MS from Oklahoma State University and his Ph.D. from Michigan State.

Richard B. Lea [Rlea@oavax.csuchico.edu] — Professor, California State University (Chico). Professor Lea previously held academic positions at University of Texas, University of Massachusetts (Amherst), and Boston University, where he chaired the accounting department. He has also been partner in charge of auditing research at Peat Marwick Mitchell & Co. and partner in charge of Main Hurdman's professional development — U.S. Practice.

Professor Lea has published in *The Accounting Review* and *Auditing: A Journal of Practice and Theory*. He is also co-director of a project to reengineer elementary accounting at CSUC.

George A. Lewis [Galbplb@aol.com] — Partner, Broussard Poché Lewis & Breaux. He has been with his current firm for over 30 years, after leaving Arthur Andersen & Co.

Mr. Lewis has served on the AICPA Board of Examiners and chaired the Examination Division's Accounting Practice Subcommittee. He also served on the Auditing Standards Board for five years.

Mr. Lewis is a graduate of Louisiana State University.

Patrick J. McDonnell [pmcdonne@colybrand.com] — Vice Chairman-Business Assurance, Coopers & Lybrand LLP. Before assuming responsibility for the audit and assurance practice in the United States, Mr. McDonnell was Vice Chairman, Client Service and Relationship Management, and before was managing partner of various C&L offices.

Mr. McDonnell received his BBA from the University of Notre Dame and his MBA from the University of Michigan.

Harold L. Monk, Jr. [76171.3252@compuserve.com] — Managing Partner, Davis, Monk & Co. Mr. Monk helped form his current firm in 1977, after having worked for a large local firm and the University of Florida.

Mr. Monk has served on the Auditing Standards Board and now serves on the AICPA Private Companies Practice Section Executive Committee and the Quality Review Executive Committee. He is a past member of the Special Committee on Financial Reporting and the Region IX Trial Board. He has also served on numerous committees of the Florida Institute of CPAs including its Board of Governors and, currently, its Not-for-Profit

Committee. Mr. Monk served the Florida State Board of Accountancy as a technical investigating officer.

Mr. Monk has published several articles, three CPE courses, and is currently editing an accountant's reference book. He received his BSBA degree from the University of Florida.

Donald L. Neebes [Don.Neebes@ey.com] — Partner, Ernst & Young LLP. Mr. Neebes is currently a practice partner and Associate Regional Director of Accounting and Auditing. He previously served as the firm's National Director of Quality Control and as National Director of Auditing Standards.

Mr. Neebes is a former chairman of the AICPA Auditing Standards Board, Information Retrieval Committee, and the SEC Practice Section's Peer Review Committee. He has also served on AICPA Council, Federal Government Executive Committee, Nominations Committee, Quality Control Standards Committee, and the Special Committee on Concepts of Independence. He is also a member of the Governmental Auditing Standards Advisory Council.

Mr. Neebes is a graduate of Michigan State University.

Chester P. Sadowski [72741.1221@compuserve.com] — Vice President, Controller, and Chief Accounting Officer, US Home Corporation. He has been with US Home since 1974, working in both accounting and internal audit, and before that worked for Arthur Andersen & Co. in Tampa.

Mr. Sadowski is a member of the AICPA Professional Issues Subcommittee and previously served on the Real Estate Committee.

He received his BSBA degree from the University of Florida.

Sandra A. Suran [Sandra_Suran@ortel.org] — President, the Suran Group. Before founding her current company, Ms. Suran was a founding partner of Suran & Co., CPAs, which merged with KPMG Peat Marwick in 1985. She then served as a partner of Peat Marwick and also served as the State of Oregon's first Small Business Advocate.

Ms. Suran has served on the AICPA Board of Directors, Council, and Private Companies Practice Section Executive Committee and the FASB Small Business Advisory Committee. She chaired Technical Issues Committee of the PCPS, the Oregon State Board of Accountancy, and was president of NASBA. In addition, she has served on many boards of directors, including the Portland branch of the Federal Reserve Bank of San Francisco.

Ms. Suran received her BBA from the University of Portland.

Don M. Pallais [75471.162@compuserve.com], *Executive Director* — has had his own practice since 1986. He previously served as AICPA Director, Audit and Accounting Guides and worked for Coopers & Lybrand and in private industry.

Mr. Pallais has served on several AICPA committees including the Auditing Standards Board and the Accounting and Review Services Committee. He has also served on technical and disciplinary committees of the Virginia Society of CPAs, including its Board of Directors.

He has co-authored five books and contributed to several others. He has also published dozens of CPE courses and articles on accounting and auditing topics. Mr. Pallais received his BBA from Baruch College and his MBA from the College of William and Mary.

Other Participants

Subcommittee Members, Staff, and Other Contributors

The following individuals served on subcommittees, provided staff support, or were regular observers at Committee meetings.

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Consultants

The following individuals provided insights on specialized topics to the Committee or provided research assistance.

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Produced by the AICPA Special Committee on Assurance Services

The Committee's Approach

The Special Committee on Assurance Services was created in 1994. Its charge was to analyze and report on the current state and future of the auditing/assurance function and the trends shaping the audit/assurance environment, focusing on the current and changing needs of users of decision making information and other stakeholders in the audit/assurance process and how best to improve the related services provided to those parties.

The timing of its work was as follows:

Date	Event
November 1994	First meeting
November 1994 to summer 1995	Research
Fall 1995 to fall 1996	New service identification and development
October 1996	Oral report to AICPA Council
October 1996 to December 1996	Completion of website, constituting the final report

Research

The Committee's first concern was information gathering. It began with a vision of the future based, in part, on issues raised at an AICPA conference held in Santa Fe, New Mexico in 1993.

Before the first meeting of the Committee, an informal literature search was conducted to consider the views of others who had studied the state of the auditing function and its future. The result was Analysis of Research and Possible Directions.

The Committee then performed its own research. The research was not empirical or statistical. Rather, the Committee's work was qualitative and consisted primarily of interviews, observation, and analysis intended to create a vision of the future environment in which CPAs will function and to identify the economic space in which CPAs' attributes and abilities would be most valued. It studied the following areas:

- Customer needs, which was intended to identify existing needs for information and assurance about it. The Committee conducted interviews with investors, creditors, board members, managers, regulators, and other decision makers to find out about their critical decision needs, the information they used to fill them, and how satisfied they are with the information they use.
- Megatrends, which was intended to identify the forces that will change existing needs for information and assurance and create new ones. The Committee, assisted by trend-

monitoring consultants, reviewed the economic, social, and political trends and identified the opportunities and threats they pose.

- Information technology, which was intended to identify how advances in information technology will affect the use of information and the needs for assurance on it. The Committee analyzed enabling technologies to consider how new technologies will change computer applications, business processes, information use, and the need for assurance.
- CPA competencies, which was intended to identify the skills that CPAs can leverage in providing new services. To identify existing competencies, the Committee used the work of some large CPA firms and studies done by the professions in Australia and New Zealand. These data were used to identify existing competencies in the CPA profession. Gaps were later identified between those competencies and the ones that are needed for the future.

New Service Identification

The research served as a starting point for identifying new opportunities. The committee's goals were threefold:

(1) Develop a new concept of professional service — assurance services — to serve as a foundation for new opportunities. The concept of assurance service is described in detail in Definition and Interpretive Commentary. Additional studies flesh out related concepts of litigation risk, independence, relevance services, and how the CPA's services fit into the client's own value chain.

(2) Identify and define some specific services that CPAs can deliver. The Committee's strategy was to identify potential services based on the needs that surfaced in its research. In developing new services, it looked at service extensions — providing new services to existing client types and providing existing services to new client types — and new lines — providing new services to new client types. The services are a mix of long-term opportunities and those that can be delivered immediately. Some services are designed to appeal to primarily to small CPA firms, others to large ones. The Committee developed 6 service concepts, described another 7 attractive opportunities, and conducted a survey that identified over 200 more. They are described in New Assurance Services. The Committee also studied the future of the current services and actions that should be taken to keep them vigorous. The new services proposed are consistent with the recommendations for improving current services and can be seen as steps that, taken together, can create synergy for the profession.

(3) Create ongoing mechanisms to develop service opportunities in the future. Two models were created: one for firms to develop their own assurance services and another for the AICPA to use in continuing the work of the Committee.

The Committee's efforts also resulted in a set of recommendations for institutions, organizations, and individuals.

Outreach

The Committee believed that, while conducting research, constructing models, and developing services is valuable work, the real benefits of the project can be realized only if practitioners understand, agree with, and adopt the basic message. Accordingly, the members of the Committee gave a high priority to communications. Waiting until a report was issued would not sufficiently involve the profession and would prevent the Committee from gaining important insights. The Committee determined to communicate the urgency of the issue and involve the profession in its efforts. It undertook a communications effort that involved live presentations, videos, articles, and other materials.

Live Presentations

As of December 31, 1996, Committee members had done or scheduled 168 live presentations on the work of the Committee. Members visited 36 states in this effort. The following chart summarizes presentations by host audience:

	Host groups	Presentations made	Scheduled but not yet done	Total presentations
State CPA societies	31	56	6	62
AICPA committees and conferences	16	27	1	28
Firms and firm associations	18	19	4	23
Regulators	8	12	1	13
Accountants in industry	5	10		10
Governmental groups	7	7		7
University/educator groups	13	16	3	19
Others	3	6		6
Total	101	153	15	168

Video

The Committee, realizing that it couldn't reach all its intended audiences with live presentations, developed seven videos during the course of the project. Two were targeted to state societies and regulators, three to AICPA audiences, one to academics, and one (done in conjunction with the Financial Executives Institute and the Institute of Management Accountants) to accountants in industry. The videos were sent to thousands of CPAs; the AICPA Private Companies Practice Section underwrote the cost of providing a May 1996 video to each its member firms.

Written Material

Committee members wrote or contributed to at least 19 articles in professional journals and newsletters. Additional plans were underway to reproduce Committee materials in several state society publications. The following is a summary:

Issue date	Publication
September 1994	Journal of Accountancy
September 1994	Accounting Horizons
Winter 1994-95	Journal of Corporate Accounting and Finance
April 1995	Oregon CPA
July 1995	Dakota CPA
July 1995	Journal of Accountancy
October 1995	Florida CPA Today
November 1995	Lagniappe
December 1995	Accounting Horizons
January 1996	Oregon CPA
January/February 1996	CPA Letter
February/March 1996	Line Items
Spring 1996	Journal of Corporate Accounting and Finance
May 1996	CPA Journal
June 1996	Tennessee CPA
July 1996	Journal of Accountancy
September 1996	Journal of Accountancy
December 1996	Journal of Accountancy
April 1997 (scheduled)	Journal of Accountancy

Other

The Committee developed a 4-hour module that it used with state CPA societies to get members' reactions to some relevant and important issues. The Committee subsequently made the module, along with a discussion guide and an interactive videotape, available to the societies so that they could use the materials for committee and chapter meetings.

Produced by the AICPA Special Committee on Assurance Services

Questions and Answers

Rationale for the Project

Q. Why should nonauditors, such as consultants, tax specialists, or CPAs who provide other accounting services be concerned with the future of auditing?

A. The audit is the profession's defining service and much of the value of the CPA certificate — even to nonauditor CPAs — comes from the goodwill resulting from the public's trust in this function. Diminution of the certificate's value affects all those who get a competitive advantage from it. Thus, strengthening the profession inures to the benefit of nonauditors. In addition, of course, any new assurance services can be provided by all practicing CPAs. So there is potential growth for them as well.

Q. Why is this initiative necessary when most financial statement users are satisfied with what they are currently receiving? Why raise preparers' costs unnecessarily?

A. There's lots of evidence that users have unsatisfied information needs. In any case, this initiative was never designed to add financial reporting requirements and has not done so. It has focused on customers' needs and attempted to identify market demands for practitioners' information services. The focus was not just on the needs of users of financial statements, but on the needs of all users of decision making information. CPAs, like others who provide goods or services, continue product development even if all identified needs are met, because there may be latent needs or ones that will arise in the future. Latent needs might have unexpected consequences. For example, to fill their unmet needs, users with clout such as institutional investors might each insist on closer scrutiny of operations and require a separate effort. In this scenario costs would rise as companies had to undergo several "audits" a year instead of just one. Anticipating such a need could lead to structural changes that would ultimately reduce costs.

Q. Does the committee believe that historical financial statements are worthless?

A. No. Historical financial statements and audits of them have great value. The Committee has said this repeatedly in its documents and in its members' speeches. However, financial statements are only one part of the information mix that many people want. Information needs have expanded and much of the information used to make decisions is not subjected to objective testing. The Committee's goal was to find out what other information needs can be met by CPAs — how they can add value to information other than historical financial statements. For example, CPAs might add value by reporting on nonfinancial information or systems that produce or store information. The Committee believes that CPAs need to seek out services not provided by anyone else that will add value.

Q. Isn't this just a method to increase CPAs' fees?

A. CPAs increase revenues the same way any other business does — by providing new or improved products or services that meet customer needs. If the Committee's recommendations result in new services that add value for customers, CPAs will be engaged to provide them and increased fees will result. If the recommendations are not seen as adding value, they won't be demanded and won't result in additional income.

Q. Why is it necessary to advance change at the professional level rather than just letting the nimble firms exploit marketplace opportunities.
New services should be identified at both the firm and the professional level and there should be cooperation between the AICPA and firms in advancing new assurance services. The AICPA can do some things that individual firms cannot.

Some new opportunities involve entering areas where CPAs do not enjoy market "permissions." The profession as a whole can more readily develop such permissions than any single firm, no matter how prominent. The flip-side of this coin is that the public may cede "ownership" of new areas to CPAs if we can demonstrate the highest and most relevant standards — which can only be adopted at the institutional level.

Q. Did the Committee change the standards for auditing or financial reporting?
A. No. The committee has no standard-setting authority. Its mandate was to identify and examine issues and make recommendations. It would be up to bodies with the requisite authority to consider and act on the recommendations as they believe appropriate. It made no recommendations for specific new accounting or auditing standards. However, it did recommend development of additional how-to guidance in certain auditing areas and suggested monitoring the effectiveness of some existing financial reporting rules.

The Committee's Approach

Q. What was the makeup of the Committee?
A. The Committee and executive director included members from four small firms, one medium firm, six large firms, two universities, one governmental unit, and one industrial company. Six have served on the Auditing Standards Board; others have served on the SECPS and PCPS Executive Committees, Technical Issues Committee of the PCPS, Accounting and Review Services Committee, Quality Review Executive Committee, AICPA Council and Board of Directors, among others.

Q. Did the Committee have adequate information-technology capability given the prominent role of IT in the future of assurance services?
A. The Committee drew on expertise beyond the Committee's members. Its Information Technology Subcommittee had representatives from the AICPA Computer Audit Subcommittee and the Information Technology Executive Committee; it was chaired by an IT consultant. In addition, it has sought others' views of the information technology trends, such as from Intel Corp.

Q. How did the Committee identify new services?
A. The Committee undertook a substantial effort to talk to existing and potential customers (that is, persons who use information for decision-making, not just clients) to find out their information needs now and what they are likely to be in the future. The Committee also considered the context, that is, the social, political, and economic environment, in which services will be provided over the next ten years. Also, the Committee surveyed CPA firms to find out the range and types of emerging assurance services being provided. All of this information helped the Committee develop services that will be valued by customers in the future.

Q. The Jenkins Committee (Special Committee on Financial Reporting) did extensive customer-needs work. Why was it necessary for this Committee to do customer-needs work also?
A. The committee used the Jenkins Committee findings, but they were almost exclusively directed at accounting issues, not assurance issues. Also, the Jenkins Committee's customer work considered primarily investors and creditors, and the Committee considered a much broader customer set.

Q. What's new here? Many innovative services are already provided by consultants and internal auditors. How are the new services different?
A. Some of the services might resemble services already provided by some accountants. What's new is (1) provision of the services for the benefit of third parties, (2) a concept of assurance services that will serve as a basis for developing services in which CPAs have a competitive advantage against other information providers, (3) a process for the AICPA to identify new services and recommendations for firms on how to do the same, and (4) approaches to help "brand" new services as CPA services in the mind of the public. In effect, the Committee is recommending that new service identification and development be an ongoing part of the conduct of business by firms and the AICPA.

Q. When will the Committee's final report be issued?
A. The Committee did not prepare a stand-alone, printed and bound report. It believed that readers — CPAs — want the power to choose information rather than a single, one-size-fits-all report. So it developed this extensive web-based presentation to provide it. CPAs will be able to see the Committee's output from the perspective most meaningful to them and to download any or all of the committee's working papers.

The report will never be final, however. The Committee intended to be a catalyst for continuous study and opportunity development. AICPA efforts will continue and additional information will be available on this site.

Q. Did the Committee expose its proposals before issuing them?
A. Because the Committee did not intend to issue standards, it did not need to follow a formal due process. However, the Committee embarked on an extensive communications

effort to ensure that parties interested in the Committee's efforts were informed about its progress and conclusions as they evolved and could provide feedback. During the project's two-year life, committee members made over 150 live presentations from coast to coast, distributed 6 videotapes, published 17 articles in 12 journals and newsletters, and developed materials that state CPA societies and other used independently to discuss the project.

Effect on the Profession

Q. Will there be any benefits for small CPA firms?

A. Yes, a great deal of them. The customer-focus idea applies to firms and clients of all sizes, and the AICPA mechanism to identify new services will serve all firms. The key to providing new assurance services is strong knowledge of the needs and capabilities of clients and potential clients, which many local firms already have but don't fully exploit. In addition, the new services will provide many opportunities for specialized, niche services for many types of information users. Many small firms will be able to fill these niches. The Committee considered and described small-firm applications for each of the services it identified.

Q. Won't implementation of far ranging, speculative, or esoteric forms of service separate the large firms who can afford to implement and market them from the small firms who can't?

A. The Committee was aware of the unique challenges faced by small firms. Its membership included small firm practitioners, and it actively sought insights from small-firm CPAs around the country. The evolution of the practice environment will both provide opportunities and pose threats to CPA firms. Many small firms will likely find opportunities to provide new services and establish new niches. It might also require a change in doing business. Small CPA firms (as well as large ones) will have to make the investment necessary in personnel and technology to meet the challenges of the twenty-first century no matter what the Committee's recommendations are.

Q. While there has been a flattening in attest work for the private sector, there has been significant growth of government audits. How does this relate to the model the Committee is using?

A. Government audits demonstrate the appeal of the customer-based model. These audits are not GAAS audits, but are tailored to meet the needs of the user (as specified by A-128, A-133, and the Yellow Book). As expected, the demand for the product designed expressly for the information-user's needs is growing. Of course, government agencies have the clout to demand a custom-tailored product. In the future, others, such as institutional investors or groups of individuals, linked by the Internet, might also wield such clout.

Q. Some people believe that CPAs should narrow their services to what they do best. How do you reconcile this with broadening the assurance function?

A. The Committee has attempted to identify what CPAs do best and what value can be transferred to new services. The Committee's recommendations focus on information services, which are the profession's strength. The more opportunities, the more choices practitioners will have to apply what they do best.

Future Services

Q. How will the competencies required to perform the new services fit with existing services offered by CPA firms?

A. Many of the current competencies will continue to be relevant — indeed, essential. However, many of the new assurance services will require auditors to make use of a broader range of talents and approaches than current audits. They might, for example, include competencies now found primarily in some types of consulting.

Q. How will the auditor look at controls in the future?

A. Auditors will be more involved with control systems. But it's difficult to achieve a useful level of assurance by coming in after the fact and examining an existing control system. It would be more effective to be involved at the time the system is designed. Controls will be built-in rather than added-on so that the focus is on error-prevention rather than detection.

In addition, the profession needs a more modern conception of controls — a broader view of the risks to be controlled and a way to make controls dynamic so they don't wind up suffocating companies, impairing their nimbleness in the marketplace.

Q. Models that suggest on-line access to financial information seem to envision publicly-held companies with many unrelated investors. Is this model relevant to a practice that focuses on privately-held companies or entities that report to regulators rather than investors and creditors?

A. Although the breadth of access to financial information differs in the absence of widely-held investment, neither creditors of small companies nor regulators are likely to be satisfied with periodic, after-the-fact reports in the future. Fortunes can change rapidly even in regulated industries such as financial institutions (consider, for example, Barings or Daiwa Bank).

Q. Will companies really agree to open their books to allow electronic access to their records?

A. Initially they will probably resist. However, they will ultimately do it because it will be economically beneficial for them. But, any information access will have to be carefully designed to prevent disclosure of competitively disadvantageous information.

Q. Isn't there a real chance that the new types of services will be too risky in our litigious society?
A. The Committee studied litigation risk and how it might affect new assurance services. While it is impossible to eliminate the risk entirely, the Committee identified several techniques to lessen it.

Q. What must CPAs do to prepare to provide these new services?
A. CPAs need to establish a customer-oriented mindset. The Committee hopes that it has provided the impetus for such a change. It developed specific new services and — in conjunction with Practitioners Publishing Company — practice aids to deliver some of them. Service development efforts on others will continue, which are expected to result in useful measurement criteria and performance guidance. CPAs might also need new skills and knowledge to perform new services. The committee has identified new competencies that might be needed. The AICPA expects to communicate with educators, CPE developers (the AICPA has developed four CPE courses related to the Committee's work), and CPE providers to make sure that CPAs are adequately prepared to provide new services.

Independence

Q. To accomplish the goal of expanding service beyond the traditional, might the profession cast aside independence and objectivity?
A. No! Independence and objectivity are necessary features of assurance services. Independence is written into the definition of the services. The Committee has studied how the concept of independence should be applied in nontraditional types of engagements.

Payment

Q. How will CPAs get paid for these new services?
A. The services will be based on delivering value and for that reason will be purchased and paid for. There will be a wider variety of payer-assurer relationships. In the traditional audit relationship, when a client pays for a service that benefits a third party, the cost of the audit is imbedded in the transaction price (the interest rate on a loan for example). This cost is typically far outweighed by the benefit received by the client (for example, lower interest rates; in fact, if the cost weren't lower, the client would not engage an auditor). Nonetheless, in other cases, it may be preferable to provide information directly to — and receive payment directly from — the ultimate consumer of the information. This issue is discussed further in A Model for CPA Firms to Turn Needs into Services.

Regulation and Standards

Q. How does the Committee expect to accomplish real change, when standard-setting and regulatory bodies take such a long time to address change?
A. Most of the Committee's recommendations can be implemented without standard-setting or regulatory changes. However, the Committee kept standard setters aware of its progress and involved them in the process.

Q. Will any new services be restricted to CPAs?
A. The Committee is not counting on expanding the assurance function through a government-ordered monopoly on any new services. It's also not certain that any new services would be mandated by law. Therefore, it is likely that CPAs will have to compete with nonCPAs to sell and provide new services. However, the Committee studied the competencies of CPAs to determine those attributes of CPAs that give them a competitive advantage over would-be competitors and expects that new services will take advantage of those competencies. For example, CPAs generally have unique competence in designing tests and reporting the results. The public also holds in high regard their reputation for integrity, objectivity, and independence. The Committee communicated to educators and others competencies that are needed but currently lacking so that the profession will have the appropriate tools.

Q. *What is the role of rule-making relative to going into new areas?*
A. With a "hard" product (e.g., a standardized, manufactured item), the consumer can judge product attributes directly without referring to product standards. But with services or "soft" products (like information products), standards can serve a role in creating a uniform perception of their attributes and qualities in the marketplace. Examples are the ANSI and ISO standards. In some cases, standards are even proprietary (e.g., DEC, Microsoft). The key is to express standards in terms of product qualities, not production rules. That way, suppliers can compete to improve the production technologies without running afoul of the standards.

CPA Training

Q. How are you considering the need for additional CPA training, specifically university curricula, the CPA exam, and continuing education?
A. The Committee has begun discussions with both the AICPA Academic and Career Development Executive Committee, an American Accounting Association committee, and the Board of Examiners' Content Oversight Task Force. Members of the Committee have also been involved with Accounting Education Change Commission, and, two are academics.

The Committee also kept the AICPA's CPE staff apprised of the relevant issues.

Q. Where new competencies are required, will we train CPAs in them or train specialists in other domains to be CPAs?
A. Clients only want to pay for value added, and that requires experience and maturity. If these qualities are best acquired rather than developed, the historical pattern will reverse: instead of CPA firms training people for industry, industry will train people for CPA firms. This could have major implications for curriculum and acculturation of professionals. However, such a pattern could have influence without becoming dominant, and the question will be how to inculcate experience, maturity, and whatever other attributes are needed to deliver the services effectively.

Q. Will CPAs have to become infotechies in this new world?

A. CPAs will need to considerably increase their ability to understand and use technology, but the essential CPA skills of understanding business operations and designing and interpreting performance measures will continue to be more important than technology skills.

Ongoing Assurance Service Development

The AICPA's commitment to expand the breadth of CPAs' assurance services can be traced back at least to the development of standards on prospective reporting and the attestation standards in the early 1980s. The phase that led to the Special Committee on Assurance Services began with an Audit/Assurance Conference in Santa Fe in 1993.

With the recent establishment of the Assurance Services Committee, the process has been institutionalized. The new committee will identify and develop services for firms to bring to market. In so doing, they often will be assisted by other AICPA components, such as CPE.

The Assurance Services Committee's first priority is to further develop some of the new assurance services identified by the Special Committee on Assurance Services. Three service development task forces have been created:

- Electronic Commerce Service Development Task Force
- ElderCare Plus Service Development Task Force
- Heath Care Effectiveness Service Development Task Force

Produced by the AICPA Special Committee on Assurance Services

Assurance Services Committee

Charge

The Assurance Services Committee will identify, develop, and communicate new assurance service opportunities for the membership — that is, opportunities to provide new independent professional services that improve the quality of information, or its context, for decision makers. If performance stanc rds are required, the task force will communicate and cooperate with appropriate senior technical committees or other bodies to assist in their formulation if the performance standards come within the latter's purview.

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Electronic Commerce Service Development Task Force

Charge

The task force will develop the electronic commerce assurance service and provide guidance for practitioners to deliver the service. It will develop measurement criteria for judging the integrity and security of electronic networks, performance and reporting guidance for CPA services, and plans for communicating the service concept to practitioners.

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ElderCare Plus Assurance Service Development Task Force

Charge

The task force will develop and communicate guidance for providing the ElderCare Plus assurance service and perform other actions necessary to create the service

Chair

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Health Care Effectiveness Service Development Task Force

Charge

The task force will develop measurement criteria and the form of procedures, reports, and practice aids necessary for consistent delivery of the health care effectiveness service. It will produce aids and other materials for interested practitioners and pilot test the service.

Chair

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