

AICPA  
Assurance Services Executive Committee

Whitepaper

*“The Shifting Paradigm in  
Business Reporting and Assurance”*

**Abstract:**

*The purpose of this whitepaper is to highlight significant trends which give rise to emerging reporting and assurance opportunities and needs. This paper is published by the [AICPA Assurance Services Executive Committee](#) with the intent of helping to build awareness of these trends and opportunities and to lay out a plan that supports the continued importance and sustainability of the accounting profession in a changing world. The subject matter outlined in this paper is of interest to AICPA members, including both members in public practice and business and industry, those in the accounting profession as a whole, and other participants in the business reporting process including producers and consumers of business information.*

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On behalf of the AICPA Assurance Services Executive Committee

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## 1) Executive Summary

This paper was written to highlight significant, fundamental changes that are already impacting the content, format, and reliability of business information that is exchanged in the capital markets. This analysis examines the current state of business reporting and assurance, identifies the key forces of change that are challenging the limitations of this current state, and sets forth a current and future migration path toward a model that better addresses the needs, challenges, and opportunities of the 21<sup>st</sup> century.

The benefits of increased transparency through more relevant external reporting are important to public and private companies, not-for-profits, and governmental entities for both internal and external reporting purposes. Moreover, the movement to improve the relevance of reporting to better meet the needs of today's markets is global in nature.

The relevance of information is impacted not only by its content, but also by the timeliness and efficiency with which it can be used. While today most external communications tend to be compliance-oriented and focused on historical financial statements, there is increasing pressure on organizations to start including the kinds of other information that they use for internal management purposes in communications to external stakeholders. There also is increasing demand, by both internal and external users of business information, for more timely information that is provided in a standard, electronic format that allows for quick and easy analysis. The current static, paper-based model is being replaced by an online model that is available on demand, in real-time (as appropriate), and that allows users to customize searches and drill-down into underlying concepts, data, and relevant resources. As the reporting model evolves to leverage greater capabilities and address emerging needs, independent assurance must adapt accordingly.

The primary factors driving change in the reporting and assurance model include the shift from the industrial age to the knowledge age; advances in technology, globalization, and market reactions to lack of transparency; and new social structures. Arising out of these forces of change as analyzed in this paper, a common theme is the recognition that the current reporting and assurance model is inadequate for the effective allocation of capital in today's global markets. And yet, the standards, technology, and tools exist to automate and enhance reporting and assurance so that they have a positive impact on market performance.

Enhanced technologies and platforms such as the Internet, and standards for information dissemination, such as the eXtensible Business Reporting Language (XBRL), enable more transparent, relevant, and efficient reporting practices and processes and can be leveraged to drive the evolution of business reporting and assurance to better meet the needs of the modern global economy. These new capabilities both facilitate and necessitate a fresh look at the information that is produced and consumed to ensure maximum value. The Securities and Exchange Commission (SEC) Advisory Committee on Improvements to Financial Reporting (CIFiR), which was formed to address complexity in existing financial reporting requirements and make information more useful and understandable for investors, can represent an important step in this direction.

Market driven initiatives, such as the Enhanced Business Reporting Consortium (EBRC) and the World Intellectual Capital Initiative (WICI), also are working to support and promote the reporting of relevant information that complements traditional financial reporting to provide a more complete picture of performance. New information formats and content have implications with respect to the role and methods of independent assurance, and the AICPA Assurance Services Executive Committee (ASEC) is working to address these implications. These are just a few examples of efforts underway around the world to maximize the quality, transparency, and relevance of reported information.

The current environment provides manifold opportunities for the accounting profession to take a leadership role. The profession, together with other market participants, must embrace change and focus its efforts on modernizing the reporting model by addressing the now imminent need for a broader “bandwidth” of information, different (automated) information distribution channels, timelier reporting, and new audit strategies and technologies. The alternative—failure to play a proactive and supportive role in a market driven solution—would negatively impact the relevance and sustainability of the profession.

This paper addresses the following elements of a recommended migration path toward achieving these objectives (see appendix, Shifting Paradigm – Roadmap, for a summary illustration):

AICPA:

- Support XBRL International, Inc. in global XBRL technical standard setting
- Support coordination of United States generally accepted accounting principles (US GAAP) and International Financial Reporting Standards (IFRS) XBRL taxonomies
- Work through EBRC and WICI to flesh out EBRC framework for key industries
- Establish standards for data integrity assurance, including security protocols

SEC:

- Move quickly toward mandatory XBRL filing
- Establish regulatory safe harbors for companies and auditors advancing the XBRL state of the art

Congress:

- Establish statutory safe harbors for companies and auditors advancing the XBRL state of the art

Individual CPAs (in public practice and industry)

- Develop competencies in XBRL and systems design and assurance

Registrants:

- Adopt XBRL for public reporting and provide for user feedback in order to continuously improve disclosures

## 2) The Paper Paradigm: Current State of Business Reporting and Assurance

### *Business Reporting*

In the context of this whitepaper, we define *reporting* as the communication of information about the operations and financial position of individual entities to both internal and external decision makers. This definition includes internal company information used for management and Board of Directors decision making purposes, as well as required financial reporting under US GAAP and IFRS. It also includes other information required by lending institutions and regulatory bodies (for example, Management Discussion and Analysis [MD&A] required by the SEC) and various communications vehicles such as annual reports, press releases, and analyst calls.

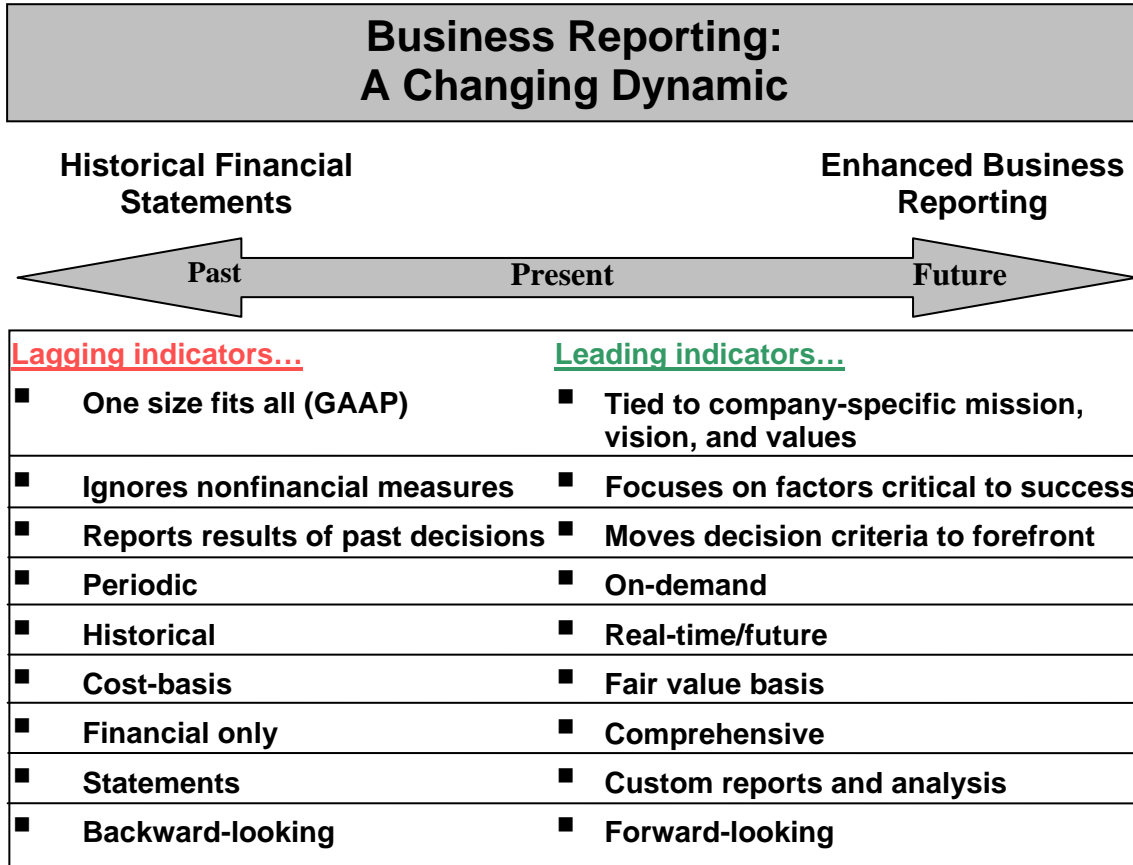
While today most external reporting tends to be compliance-oriented and focused on historical financial statements, there is increasing pressure on organizations to start providing the kinds of information that they use for internal management purposes to external stakeholders. The 2008 International Federation of Accountants (IFAC) report, *Financial Reporting Supply Chain: Current Perspectives and Directions*, which was based on the findings of a global survey conducted by IFAC in 2007, stated that, “A number of respondents considered that more alignment of external and internal reporting would benefit both companies and users. One of them proposed ‘Let’s improve financial communication by reporting to users the internal information that you actually use to run your own business.’” Similarly, in a 2008 survey of business professionals and investors conducted by Knowledge@Wharton and the EBRC, 90 percent of respondents indicated that information on intangible assets is important in determining the market value of a company’s stock, and 64 percent of respondents indicated that this type of information should be disclosed outside of traditional financial statements in the form of either narrative disclosure or key performance indicators (KPIs), that is, the type of information that management uses to run the business. This pressure, and the benefits of increased transparency through more relevant external reporting, relates to public and private companies, not-for-profits, and governmental entities. Moreover, the movement to improve the relevance of reporting to better meet the needs of today’s markets is global in nature.

The foundation for the current external financial reporting model (that is, US GAAP and other equivalents like IFRS) was adopted during, and to meet the needs of, the industrial age. It is, to a large extent, based on the assumption that profitability is driven by tangible assets such as physical plant and equipment and raw materials that are needed to produce tangible products. This model was not designed to describe the vast array of new business models that companies now follow in the knowledge economy—business models that, in many cases, rely heavily on the employment of intangible assets to create value and drive profitability.

“The key driver of value for many of the fastest growing companies in the financial and commercial world is what is known [knowledge] by management, employees, customers, suppliers, contractors, affiliates, and investors. But what is

known is a great deal different from what can be manufactured, shipped, insured, broken, repaired, and worn out [tangible assets].”<sup>1</sup>

An industrial age measurement model is being applied to the organizations of the knowledge economy. While all enterprises (including those in industries that primarily deal in tangibles, such as agricultural, manufacturing, and distribution, among others) have progressed to become more global, highly automated, and increasingly reliant on intangible value drivers rather than physical assets alone, the reporting model has not adapted at the same pace as illustrated by the following diagram:



Existing corporate reporting is generally compliance-based and, therefore, falls under the left side of the preceding diagram, whereas companies have already moved to the right side of the diagram for the purposes of managing and creating value through operations. This begs the question of whether some of the information that is now being used for internal decision making purposes should also be provided to external decision makers.

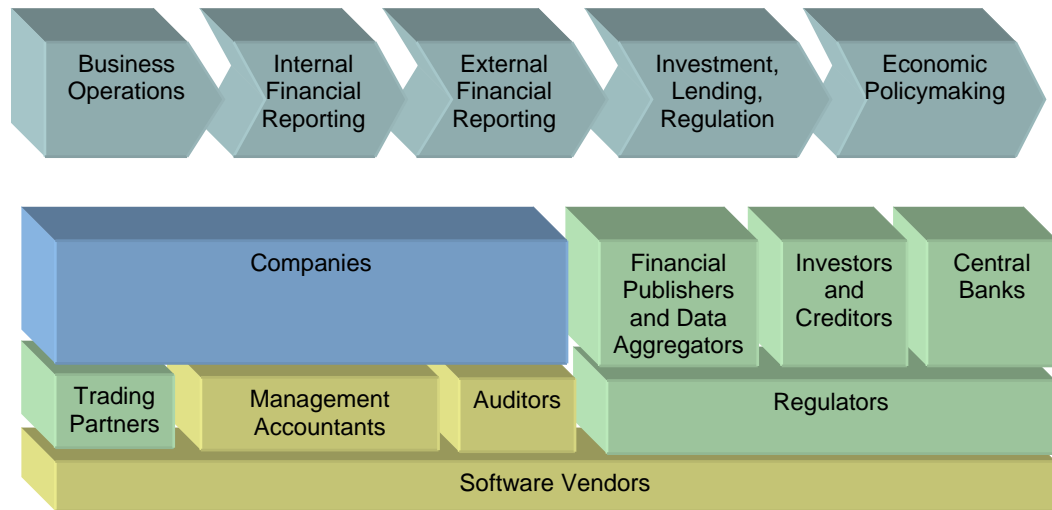
While the current model does serve as an effective foundation from which business reporting should start, timely decisions can be made only by looking at both lagging indicators (such as those found in historical financial statements) *and* leading indicators (such as value drivers and key performance indicators), which provide more predictive

<sup>1</sup> Robert E. Litan and Peter J. Wallison, *The GAAP Gap* (Washington: The AEI Press, 2000).

information about the future cash flows and viability of the business. Whereas the current reporting model is a one-size-fits-all model with an exclusively historical financial statement focus, an enhanced reporting model would allow for better decision making through up-to-date information on mission, vision, value drivers, and critical success factors, which are all relevant measures that speak to future potential. This is the kind of information that management currently uses to make key decisions, and yet there is a disconnect in the corporate reporting process between the information management uses internally for decision making purposes and what is provided externally to the marketplace for its decision making.

The following diagram of the corporate reporting supply chain illustrates the interconnected nature of the reporting and assurance processes and participants and demonstrates the potential for gains in efficiency and effectiveness through the elimination of disconnects between linkages:

### **The Corporate Reporting Supply Chain**



**Legend\***  
 Producers of Business Information: █  
 Consumers of Business Information: █  
 Enablers of Business Information: █

*\*Note: This diagram represents a simplified view—an individual stakeholder can reside in multiple communities depending on their reporting relationship with other stakeholders.*

Internal and external reporting are currently addressed separately using disparate systems and, furthermore, external reporting is only a subset of what management uses internally to run the business and make strategic decisions. The broader set of information that management relies on is contained in multiple databases, and those databases containing external financial reporting data are typically separate from those that contain key performance indicators and segment data. Information often is managed in a spreadsheet sprawl environment, where key information is contained in multiple spreadsheets that are manually created and managed by individuals throughout a company. Not only is this

inefficient in the sense that much time is wasted trying to make sense of inconsistent data from multiple systems, but reliability also is limited by the fact that there is no independent assurance provided on the information that management is using internally to run the business. This, in turn, makes it difficult to try to better align internal and external reporting.

Another misalignment problem is that by rewarding short-term behavior, the market often discourages management from embracing a longer-term vision that would ultimately maximize value to owners and shareholders (for example, whereas internal policy is to develop talent, the market rewards those who downsize by slashing workers). The current market practice of setting quarterly earnings targets and then penalizing companies that miss these targets by pennies is often criticized in this context. The problem of misalignment between internal and external reporting is further exacerbated by the fact that the users of financial information, including credit and equity analysts, lenders, and investors, in many cases are not using the same information or level of detail, or both, that companies include in their external financial reports. Instead, that data is often subjected to parsing and normalization by data aggregators and intermediaries like Compustat before being input into analyst valuation models.

The current business reporting model also is limited by its focus on static, paper based, summary level reports, whereas technology has evolved to enable an online model that is available on demand, in real-time (as appropriate), and that allows users to customize searches and drill-down into underlying concepts, data, and relevant resources. This is made possible by Internet standards such as XBRL, Web services, and XML signatures.

### *Assurance*

The primary business of the assurance profession is the audit of corporate financial statements, and assurance standards have been developed in the context of the historical, paper based, summary level reports described above. As a result, existing assurance standards are not written to address information presented in electronic format and transmitted over the Internet. Furthermore, the auditors' report contains assurance that the financial statements as a whole provide a fair presentation in accordance with the relevant financial reporting framework. Current assurance standards are, accordingly, focused on the financial statements "taken as a whole" rather than (1) individual components, (2) their underlying details, or (3) the additional information that may be contained within the broader company report. While there are broad attestation standards covering the expression of opinions (or lower levels of assurance) on other information, these standards are in practice basically for special reporting and are not widely applied.<sup>2</sup>

The overarching challenge is that the current corporate reporting and assurance process needs to evolve to a more cost effective and broader model that is better capable of handling the increasing complexity of business and market needs and demands for more relevant, timely, and comparable information. The remainder of this paper outlines relevant forces of change, their implications with respect to the future of reporting and

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<sup>2</sup> J.Efrim Boritz and Eric E. Cohen. *Assurance for a Data-Centric World* , April 29, 2005 version.

assurance, an emerging migration path, and the leadership responsibility of the accounting profession and other stakeholders in driving and facilitating improvements.

### **3) The Forces of Change and Implications for the Future of Reporting and Assurance**

We have organized the forces of change that either directly or indirectly impact reporting and assurance into the following five categories:

- a) The shift from the industrial age to the knowledge age
- b) Information technology
- c) Globalization
- d) Demands for transparency and new focus on corporate governance
- e) New social structures

Each of the five is summarized below in the context of its implications for the present and future of reporting.

#### ***a) The shift from the industrial age to the knowledge age***

While the existing reporting model provides an excellent foundation and is an essential starting point to ensure a smooth transition to an enhanced model, much has changed since the industrial era when it was created, and as a result, there are many opportunities for enhancements that would better meet the needs of 21<sup>st</sup> century capital markets. Today, the nature of modern corporations, how they are managed, and the evolving performance indicators that senior executives routinely use underscore the need for an expanded reporting model. The current knowledge-based economy emphasizes management of intangible assets and decreases the focus on physical assets, measured largely in terms of historical cost.

Not surprisingly, research by AssetEconomics and Accenture shows that about 75 percent of an entity's market value is based upon value drivers not fully communicated through the existing US GAAP model.<sup>3</sup> Whereas disclosure of key value drivers would provide a more transparent perspective on the performance potential of companies with business models that rely heavily on intangible assets (that is, most, if not all enterprises in the knowledge economy—even those that also rely heavily on tangible assets), research by PricewaterhouseCoopers (PwC) and EdgarOnline tells us that only about one-third of the value drivers generally associated with surveyed industry sectors are currently published in formal filings.

The implication is that 75 percent of the value attributed to companies by the market potentially involves a high degree of guesswork or speculation, or both. As a result, market values may be over or underinflated, hindering optimal capital allocation. On the

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<sup>3</sup> Analysis by Roland Burgman of AssetEconomics and John Ballow of Accenture, 2004.

one hand, we are beginning to see media speculation that Web 2.0 is developing the same type of bubble that we saw with Web 1.0 (the dot.com bubble), where there is a market *overvaluation* of intangibles with resulting *too low* cost of capital. Over time, however, empirical evidence also points to a systematic *undervaluation* of intangibles-intensive enterprises by investors, which translates to an *excessively high* cost of capital. This can lead companies to underinvest in intangibles and shift resources from high impact research to modifications and extensions of current technologies, thereby jeopardizing earnings and growth potential.

Burgman and Roos analyze the business models that prevail in today's knowledge economy in their paper, "The Importance of Intellectual Capital Reporting: Evidence and Implications."<sup>4</sup> The paper addresses the large scale emergence of business models other than the traditional business model (that is, one that is based on the production of a product or service) as one of eight "megaforces that are identified to present a case for operational reporting and, within that context, intellectual capital reporting." Likewise, in his book *The World is Flat*<sup>5</sup>, Friedman describes the "ten forces that flattened the world," all of which have direct implications for the present and future of reporting and assurance. Three, including outsourcing, supply-chaining, and in-sourcing relate to the evolution of how businesses create value:

- Through supply-chaining and in-sourcing, the corporate supply chain has become highly automated and is often managed by computer based logistics and optimized by third party logistics service providers. Information flows resulting from this development are significant both in terms of amount and importance to the success of the business, giving rise to the need for some level of disclosure about the operation of these systems.
- Outsourcing raises new challenges because outsourcer and outsourcee entities may have, for example, different auditors, audit standards, quality standards, or ownership.

### ***b) Information Technology***

Six of Friedman's ten flatteners relate to information technology, including the creation of a standardized interoperable computing platform, the advent of e-mail and Internet browsing, work flow software, open sourcing, in-forming, and the proliferation of tools that make data digital, mobile, personal, and virtual:

- The convergence of desktop computers, modems, global communication networks, standard protocols (for example, TCP/IP, SMTP, X.400, X.25, and HTML), and standard applications (for example, Excel and Word), established a basic interoperable platform for information storage, manipulation, and communication.
- The proliferation of a standardized, Internet based platform, made more accessible through the introduction of the Web browser (HTTP), led to interconnectivity and

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<sup>4</sup> Roland Burgman and Goran Roos, "The Importance of Intellectual Capital Reporting: Evidence and Implications," *Journal of Intellectual Capital* 8 (2007).

<sup>5</sup> T. L. Friedman, *The World is Flat* (New York: Farrar, Straus & Giroux, 2005).

permits the dynamic updating (DHTML) of information accessible on demand to users from sources around the globe. New Internet based technologies provide more effective ways for corporations to communicate with stakeholders (that is, “push” demand), and for stakeholders to communicate with corporations and each other (that is, “pull” demand).

- Work flow software, which enables software and hardware interoperability, allows for diverse processes to be integrated and optimized with little regard to their physical location.
- *Open sourcing* implies open rights to any party to use and modify a piece of software or the usage of a patent and allows for tremendous flexibility of usage and rapidity in the spreading of applications. Open sourcing is an extremely effective collaboration mechanism for the development of both Internet and information standards.
- *In-forming* entails the emergence of tools to organize and present the enormous amount of information on the Web in a practical and useful way, such as browsers and intranets.
- The proliferation of tools (for example, wireless technology, file sharing, laptops, and PDAs) that make data digital, mobile, personal, and virtual, or “steroids” as Friedman calls them, will “amplify and further empower all the other forms of collaboration. These steroids should make open source innovation that much more open because they will enable more individuals to collaborate with one another in more ways and from more places than ever before. They will enhance outsourcing because they will make it so much easier for a single department of any company to collaborate with another company. They will enhance supply-chaining because headquarters will be able to be connected in real-time with every individual employee stocking the shelves, every individual package, and every Chinese factory manufacturing the stuff inside them. They will enhance in-sourcing—having a company like UPS come deep inside a retailer and manage its whole supply chain, using drivers who can interact with its warehouses and with every customer, carrying his own PDA. And most obviously, they will enhance in-forming—the ability to manage your own knowledge supply chain.”<sup>6</sup>
- Other information technology developments that are not directly referenced under Friedman’s discussion of flatteners, but that are highly relevant in terms of potential impact on the nature of the evolving business reporting model, include, among others, neural nets, wikis (collaborative Web sites, for example, Wikipedia), eRationality, object based media, neuroengineering, and robotics.

### ***c) Globalization***

- While it is debatable whether it is a driver of globalization or the result of globalization, the tenth of Friedman’s flatteners is offshoring, where companies shift entire production facilities offshore and then integrate them into their global supply chains. Outsourcing is another phenomenon of globalization in that

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<sup>6</sup> T. L. Friedman, *The World is Flat* (New York: Farrar, Straus & Giroux, 2005).

outsourcing services are often provided by companies in geographic locations with favorable cost structures. One consequence of the globalization of capital markets is that organizations have facilities in different jurisdictions, with, for example, different cultural principles, affiliations, ownership, accountability, and auditing standards. Domestic demand for international capital sources drives demand for a common language and global consistency in accounting and auditing standards, hence, the recent focus on convergence of international auditing and accounting standards.

***d) Demands for transparency and new focus on corporate governance***

The call for more relevant information echoes externally from investors, creditors, analysts, regulatory agencies, and standards setters, and internally from boards of directors and management. The passage of the Sarbanes-Oxley Act in the United States, and similarly of the European Union's 8<sup>th</sup> Directive on Company Law, are indicative of a renewed focus and emphasis on corporate governance and the direct result of market pressure not only on corporations to enhance transparency, but also on regulators for a more proactive assessment model (for example, Sarbanes Oxley § 408, which requires more frequent SEC review of public company filings). Regulatory bodies around the world are also facing pressure for, and consequently demanding, more granular levels of assessment, as evidenced by Anti-Money Laundering regulations and Basel II on risk assessment in Europe, among other requirements.

There also are changing dynamics in user demand for, and sources of, information. On the demand side, certain governmental pension funds have been aggressively leveraging their power to require high levels of performance and strong corporate governance from the companies in which they invest. With respect to sources of information, cost pressures on sell-side analysts are leading to a significant decrease in analyst coverage of public company registrants following the 2003 SEC and New York Attorney General's settlement requiring separation of the research and investment banking departments. This has changed the way research is reviewed and supervised and the extent to which independent research is made available to investors (U.S. SEC, 2003a). Bob Greifeld, President and Chief Executive Officer of the NASDAQ Stock Market, Inc., acknowledged the consequences of such a development when he made the following statement in a 2005 NASDAQ press release: "We know that a lack of research coverage impacts company valuation, liquidity, and ultimately, the welfare and growth of public companies." Research has demonstrated cost of capital implications that are on the order of 138 basis points more expensive for those companies who are not covered by analysts."

***e) New socio-economic structures***

The final category of change is new socio-economic structures, such as the democratization of the capital markets, the aging population, and increasing social pressures.

As discussed under the preceding category on transparency and corporate governance, many factors are fueling the demand for more high quality, transparent information. A key factor is the growing democratization of the capital markets. Assets of worldwide mutual funds had grown to approximately \$14 trillion as of December 2003. According to the Census bureau, as of 2004, 94 percent of U.S. families held financial assets, and of that population, 91 percent held transaction accounts, 21 percent owned stocks, 15 percent owned pooled investment funds, and 50 percent held retirement accounts. These statistics are indicative of the impact of the forces of change outlined in the preceding sections of this paper and in Friedman's book—in which he points out that “3 billion people who had been frozen out of the field suddenly found themselves liberated to plug and play with everybody else. Save for a tiny minority, these 3 billion people had never been allowed to compete and collaborate before because they lived in largely closed economies with very vertical, hierarchical, political, and economic structures.”<sup>7</sup>

Furthermore, with U.S. mutual funds ownership exceeding 90 million individuals (not to mention pension fund and other retirement fund holdings), the data present a compelling argument that people are driving the capital markets—people who are, or will be, dependent on these assets to sustain their quality of life during retirement. There has clearly been an increase in the number of new investors through participation in 401(k) plans, and these investors need access to better information. SEC Chairman Christopher Cox highlighted the relevance of the impending retirement of the baby boomer generation within the next decade at a May 30, 2006 presentation before the American Enterprise Institute. He stated

“At the end of the 20<sup>th</sup> century, the average life expectancy was 77...At least 10 percent of babies born today should live to be 100. Demographers tell us that because they'll be healthier for much longer, they'll work much longer than their parents. This kind of revolutionary change in our society will demand corresponding changes in the way we save and invest...And with the movement away from defined benefit plans to 401(k) plans and defined contributions, the investor is in charge. So at the very same time that people are living and working longer, they're becoming active investors in droves...What we need is something that will give individuals faster access to better information that they can easily use and understand.”

Finally, increasing social pressures have manifested themselves in a growing global focus on corporate social responsibility (CSR) and sustainability, whereby investors are demanding greater accountability from companies via regular CSR or sustainability business reports and are often basing investment decisions on them.

### ***Summary***

A common theme driving out of these forces of change is the recognition that the current reporting and assurance model is largely inadequate for the valuation of today's global capital markets. As pointed out by Burgman and Roos

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<sup>7</sup> T. L. Friedman, *The World is Flat* (New York: Farrar, Straus & Giroux, 2005).

“There is an increasing insistence that the information reported and disclosed by publicly listed enterprises anywhere has to be able to be relied upon in a serious way by all information users. Traditional financial reporting does not provide sufficient insight into intellectual capital-driven enterprise forms to properly establish enterprise values and/or to do so without having enterprise valuations subject to strong revaluations as new information comes to hand.”<sup>8</sup>

And yet, the technology and tools exist to automate and enhance reporting and assurance in a manner which could have a very positive impact on the effective allocation of capital and performance of global capital markets. The following section lays out a potential migration path for how this might be achieved.

#### **4) An Emerging Migration Path**

In his July 19, 2000 statement before the Senate Committee on Banking, Housing and Urban Affairs’ Subcommittee on Securities concerning “Financial Reporting Methods for the Twenty-First Century,” then Chairman of the AICPA Robert Elliott noted that

“Real-time disclosure of selected financial information—that is, information that can be useful to investors without creating competitive disadvantage to companies—on the Internet is clearly foreseeable. In these circumstances, the annual and quarterly reporting regime is not only on its way to becoming less and less useful, it is on its way to becoming a dinosaur, an organism that has outlived its environment.”

Elliott went on to propose the following:

“If we are going to modernize the accounting model, we must focus on four things:

- First, a broader “bandwidth” of information, such as was heralded by the AICPA’s Jenkins Committee
- Second, different distribution channels, namely, the Internet
- And third, increased reporting frequency, ultimately, online, real-time reporting

However, there is also a fourth imperative. It is new audit strategies and technologies...In an ideal world, companies would be producing the new disclosures with the desired frequency over the Internet; auditors would be providing contemporaneous assurance that the information was reliable; investors would benefit from better decision making information;

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<sup>8</sup> Roland Burgman and Goran Roos, “The Importance of Intellectual Capital Reporting: Evidence and Implications,” *Journal of Intellectual Capital*, 8 (2007).

productive corporations would benefit from a lower cost of capital; and the economy would be growing with more stability and promise.”

This proposal remains relevant today, and significant progress and calls for change since 2000 in all four of these areas further support how correct Elliott was.

### ***1) A broader bandwidth of information***

The first step in this migration path is to ensure that reported content—that is, the information upon which decisions are made—is relevant and complete. There is a discrepancy between the market values of corporations as compared to their book values under US GAAP. The “increased importance of intangible assets calls for a fundamental rethinking of the kinds of information that corporations should be disclosing to investors to keep them properly informed about their financial prospects...[there is] a growing need for a system of disclosure that goes beyond conventional financial statements and the limited commentary required for a company’s MD&A.”<sup>9</sup> This is relevant for both public and private companies alike in the sense that the information that should be disclosed to investors by public companies is the same information that should be disclosed by both public and private companies to lenders and should be a subset of what is used for internal management purposes.

The need to do more to address transparency in reporting was acknowledged repeatedly in the testimony before the March 29, 2006 House Committee on Financial Services Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises hearing entitled, “Fostering Accuracy and Transparency in Financial Reporting.” This theme was echoed by witnesses who represented the SEC, Financial Accounting Standards Board (FASB), Public Company Accounting Oversight Board (PCAOB), AICPA, Financial Executives International (FEI), Security Industry Association (SIA), U.S. Chamber of Commerce, and Chartered Financial Analyst (CFA) Institute Centre for Financial Markets Integrity. For example, in his testimony on behalf of the AICPA, Barry Melancon stated that, “Today, investors, lenders, and other users of the information need to make decisions much faster and more often based on what may happen in the future rather than what has occurred in the past.”

The AICPA has undertaken many other activities since the Jenkins Committee first addressed this topic in 1995. Most recently, in 2005, the AICPA Special Committee on Enhanced Business Reporting established the [Enhanced Business Reporting Consortium](#), or EBRC—a global, collaborative effort involving corporations, investors, the accounting profession, and other key participants in the corporate reporting process—to develop and enhance the reporting model to focus not only on financial information but also on a range of contextual and nonfinancial information that provides an enriched understanding of company performance, value drivers, strategies, and potential. The work of the consortium is complementary to that of numerous international institutions and other organizations that are analyzing the role of intangible assets as key value drivers in the

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<sup>9</sup> Robert E. Litan and Peter J. Wallison, *The GAAP Gap* (Washington: The AEI Press, 2000).

knowledge economy and considering how they should be covered in business reporting.<sup>10</sup> Notable examples include the International Accounting Standards Board ([IASB](#)) [project on Management Commentary](#), the research of Baruch Lev of New York University, efforts by the Japanese Ministry of Economy, Trade and Industry (METI), and by Roland Burgman of AssetEconomics, Inc., for developing meaningful frameworks for the disclosure of intangibles. Representatives from the EBRC, METI, the Waseda Intellectual Capital Research Society in Japan, the Organization for Economic Cooperation and Development (OECD), the European Federation of Financial Analyst Societies, the Australian Society for Knowledge Economics, the University of Ferrara in Italy, and the Harvard Business School are also participating in a collaborative called WICI, or the World Intellectual Capital Initiative, to promote the development of global, open standards for enhanced business disclosures that are not covered under traditional accounting frameworks.

The EBRC is on the cutting edge of developing an internationally recognized, voluntary framework for the disclosure of key business information in addition to traditional financial statements. This framework will identify and define key measures and indicators on an industry and sector basis for the sake of consistency and comparability in reporting, while allowing companies the flexibility they need to determine the optimal level of disclosure and measures specific to their entity. The EBRC framework is being developed with a view to being internationally applicable and could serve as best practice guidance for improved MD&A in the United States and Management Commentary globally. The following diagram illustrates the broad categories and high level elements of the most current version of the EBRC framework (Version 2.0):

<b>Business Landscape</b>	<b>Strategy</b>	<b>Resources &amp; Processes</b>	<b>Performance</b>
<b>Business Landscape Summary</b> <b>Economic Industry Analysis</b> <b>Technological Trends</b> <b>Political</b> <b>Legal</b> <b>Environmental</b> <b>Social</b>	<b>Corporate Strategy Summary</b> <b>Vision &amp; Mission</b> <b>Strengths</b> <b>Weaknesses</b> <b>Opportunities</b> <b>Threats</b> <b>Goals &amp; Objectives</b> <b>Corporate Strategy</b> <b>Business Unit Strategy</b> <b>Business Portfolio</b>	<b>Resources &amp; Processes Summary</b> <b>Resource Form</b> <ul style="list-style-type: none"> <li>- Monetary Capital</li> <li>- Physical Capital</li> <li>- Relationship (Social) Capital</li> <li>- Organizational (Structural) Capital</li> <li>- Human Capital</li> </ul> <b>Key Processes</b> <ul style="list-style-type: none"> <li>- Develop Vision &amp; Strategy</li> <li>- Manage Internal Resources</li> <li>- Manage Products &amp; Services</li> <li>- Manage External Relationships</li> <li>- Manage Governance and Risks</li> </ul>	<b>Performance Summary</b> <b>GAAP-Based</b> <b>GAAP-Derived</b> <b>Industry-Based</b> <b>Company-Specific</b> <b>Capital Market-Based</b>

<sup>10</sup> Whitepaper on International Economy and Trade 2004, Towards a “new value creation economy.” Ministry of Economy, Trade and Industry, Japan.

***2–3) Different distribution channels and increased reporting frequency for online, real-time reporting:***

The second and third steps in modernizing reporting are to address the usability and timeliness of reported content. Retaining relevance amidst an information revolution requires that we move the reporting model onto the Internet and leverage appropriate Internet standards. Specifically, the advent of the Internet has introduced a communications medium that would permit the dissemination of financial and nonfinancial information virtually without cost, and the development of XBRL shows the way to using the unique qualities of XML to mine and analyze such data.”<sup>11</sup> Companies’ current paper-centric reporting processes do not allow cost-effective reporting processes for delivery of relevant, timely, complete, accurate, and reusable content, but significant advances have been made in this area with [XBRL](#), a language for the electronic communication of business and financial information which is revolutionizing global business reporting.

XBRL enables providers and users of information to produce, capture, and analyze information much more efficiently and effectively on a timely basis and across all software via the Internet. Coupled with the Internet, which allows key financial and nonfinancial business information to be widely available electronically, XBRL will enable this information to be utilized more effectively, and on a timelier basis, rather than requiring investors and other consumers to wait for a quarterly or annual report. XBRL addresses the need for “something that will give individuals faster access to better information that they can easily use and understand” as noted in SEC Chairman Cox’s May 30, 2006 presentation before the American Enterprise Institute. In that presentation, he elaborated

“just in time, we have advances in technology that allow for this change in the game...We need to make searches for information easier...We want to make the numbers derived from financial statements vastly more accurate. And we want to allow companies to communicate with investors on a constant basis. At a time when we have 24-hour news—and even 24-hour pizza delivery—why are we still living by the 10-K and the 10-Q? If investors are going to be responsible for the growth of their investments, for picking which funds to put into their 401(k) nest eggs, they’ll need user friendly, responsive numbers that are easily accessible. Interactive data does that by tagging the information on financial statements and making it interactive.”

XBRL is now a global effort, with over 25 international jurisdictions established as of the publication of this paper. It is being evaluated, piloted, and adopted by exchanges and equity regulators, financial banking regulators, and tax authorities around the world.

In the United States, the SEC established the XBRL Voluntary Filing Program (VFP) in March 2005, which allows public companies to voluntarily submit XBRL documents as exhibits to periodic reports and investment company act filings. The SEC has since

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<sup>11</sup> Robert E. Litan and Peter J. Wallison, *The GAAP Gap* (Washington: The AEI Press, 2000).

committed \$50 million to transform the EDGAR database into an XBRL-enabled interactive system. It also extended a contract to XBRL US, Inc., the U.S. jurisdiction of XBRL International, for the creation of more robust, commercial grade XBRL taxonomies (or dictionaries of terms) for preparers to use in tagging US GAAP financial statement and footnote disclosures, which will facilitate company participation in the SEC XBRL VFP and beyond.

In September 2007, the SEC announced that the combined market capitalization of companies submitting interactive data financial reports to the SEC has surpassed \$2 trillion, and Chairman Cox held a press conference to announce XBRL US's development of data tags for the entire system of US GAAP, a major milestone in the introduction of interactive data. The SEC's strong, public support of XBRL has fueled widespread speculation that the Commission will mandate XBRL for public filings. In an interview with BNA, SEC Chief Information Officer Corey Booth said the SEC views XBRL as the next logical step in corporate disclosure, and observed that actions based on the "next logical step" have governed SEC decisions since the Securities Exchange Act of 1934.<sup>12</sup> It appears that a proposed rule might be imminent.

XBRL US is also preparing to ramp up efforts to coordinate taxonomy development for other public and private sector reporting streams and to facilitate and promote the adoption of XBRL throughout the United States. Some additional notable examples of XBRL adoption in the United States and abroad include the FDIC Call Report Modernization program; the Committee of European Banking Supervisors decision to utilize XBRL as a tool in harmonizing prudential reporting in Europe; the decision by the Dutch government to mandate the use of XBRL for all public filings as of 2007; the Committee of European Securities Regulators establishment of a Consultative Working Group on the Transparency Directive—Storage of Regulated Information, to create a framework for a repository for public company information utilizing XBRL; and the XBRL tagging of financial data for companies listed on stock exchanges in Shanghai, Korea, and Tokyo.

Regulatory agencies around the world are moving towards adopting a common electronic language such as XBRL for obtaining interoperability along the information value chain. The use of a single electronic format such as XBRL would reduce the administrative burden for both businesses and regulators by enabling the filing of a range of business data to the appropriate authorities, such as financial reports, tax returns, and statistical information, more efficiently and from a single source. Governments like that of the Netherlands are realizing that XBRL tagging eliminates duplicative efforts by businesses that currently file many of the same data elements with multiple regulatory bodies by allowing companies to automatically export the specific subset of data points required for each filing from the same database. In the Netherlands, this has resulted in a reduction of the number of data elements reported by companies from approximately 200,000 to just 4,500 elements.

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<sup>12</sup> BNA Tax & Accounting: Accounting Policy & Practice Report. Vol. 3, No. 17 (2007).

XBRL is a key enabler of both Enhanced Business Reporting and the evolution toward more continuous, automated reporting and assurance. The XBRL standard information format enables interoperability between diverse systems, allowing for a more efficient business reporting process wherein companies are able to report more information on a more timely and accurate basis. Once reporting in XBRL format takes off, the concept of paper based, static, summary level reports will be replaced by an online, Web services model that is available on demand, near real-time, and subject to customized searches and drill-down into underlying data.

#### ***4) New audit strategies and technologies***

Unfortunately, current assurance procedures are not designed to address this sort of reporting model, and the scope and technology of assurance must evolve accordingly to leverage new opportunities for automated monitoring and control processes. Current assurance and auditing standards and practices were not developed with a view toward application to Internet based information, nor to company reports issued in XBRL format. The assurance model should be adapted and expanded for reporting over the Internet on enhanced business reporting concepts that are not addressed by current standards and guidance.

##### *Providing assurance on information reported in XBRL format*

At some point, it will be necessary to provide some degree of assurance on XBRL-coded data, as opposed to, or in addition to, the assurance provided on the original source—the audited financial statements.

XBRL-related assurance issues that will have to be addressed include, but are not limited to, the appropriate levels of assurance for various scenarios and the identification of the subject matter of the assurance.<sup>13</sup> Information on the Web, including XBRL documents, is vulnerable to interception and tampering. Therefore, users who depend on financial information for critical decisions should be concerned about the integrity of the information before using it for important decisions. Because information on the Internet, especially the Web, can be easily created and revised without proper authorization, the integrity and authenticity of information lacking independent assurance should be skeptically considered by entities and individuals using XBRL to produce and consume information over the Internet.<sup>14</sup>

To date, some preliminary progress has been made on enabling assurance on information reported in XBRL format. In September 2003, the AICPA Auditing Standards Board (ASB) issued Interpretation No. 5 of AT section 101, “Attest Engagements on Financial Information Included in XBRL Instance Documents” (AICPA, *Professional Standards*, vol. 1), which reflects the data presented in a financial document through the use of

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<sup>13</sup> A complete list of issues that must be addressed can be found in the briefing paper “Assurance implications of business reporting with XBRL” prepared by the XBRL International Assurance Working Group for the IAASB Steering Committee, November 25, 2005.

<sup>14</sup> CAP Forum paper on XBRL Assurance, pp. 211–212.

XBRL tags. The PCAOB has since adopted Interpretation No. 5 in a Staff Q&A entitled “Attest Engagements Regarding XBRL Financial Information Furnished Under the XBRL Voluntary Financial Reporting Program on the EDGAR System.”

The AICPA ASEC’s XBRL U.S. Assurance Task Force is working to further address XBRL-related assurance needs under U.S. reporting requirements. The task force also will consider the development of recommendations for changes to existing standards or new standards, or both, as necessary. The task force efforts are observed by representatives of the SEC and PCAOB. Moreover, it has established liaisons with both the Center for Audit Quality (CAQ), an autonomous public policy organization affiliated with the AICPA, and the ASB. To ensure collaboration on XBRL-related assurance guidance and practices around the world, the task force also liaises with the XBRL International Assurance Working Group, which was formed in January, 2005 and is focused on XBRL assurance-related outreach to the IFAC and the International Auditing and Assurance Standards Board (IAASB).

#### *Data-level assurance*

In addition to these immediate assurance issues arising out of the adoption of XBRL, the shift toward electronic reporting, in general, and the reporting of information that is not part of summary financial statements, in particular, is indicative of the need to move toward a data level assurance environment where selective disclosures can be made with assurance (as opposed to assurance being provided only at the summary financial report level). In this aspect, it is noteworthy that a Canadian Institute of Chartered Accountants (CICA) publication aimed at boards of directors (CICA 2002) lists data integrity as one of 20 key issues that directors should be concerned with. However, a PricewaterhouseCoopers survey (PwC, 2001) found a surprising complacency about data management: two-thirds of boards do not address it, two-thirds place responsibility for it solely on the CIO or IT department, half of CEOs do not see it as a strategic issue; one-third of respondents believe management doesn’t place enough importance on it; only one-third are very confident about the quality of their own data, and even fewer are very confident about the quality of others’ data; and three-fourths had experienced problems as a result of data quality issues.

As industry moves to a data-centric mindset, existing assurance will become increasingly inadequate. Fewer and fewer human eyes will look at financial reports directly. Increasingly, information will be fed into automated reporting and analysis systems, personalized models, or repurposed for various parties, being completely transformed before appearing before the eyes of a decision maker.<sup>15</sup>

As mentioned in the introduction to this paper, the typical assurance provided today is opinion level assurance on the financial statements as a whole; that is, whether financial statements as a whole present fairly, in all material respects, financial condition, operations, and cash flows. If individual data elements are distributed separately from the aggregate financial statement over the Internet, these individual data elements are not

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<sup>15</sup> J.Efrim Boritz and Eric E. Cohen. *Assurance for a Data-Centric World*. April 29, 2005 version, p. 13.

assured as being free of material error despite a clean opinion on their originating financial statement. Today, opinion level assurance is also limiting in the sense that it only applies to summary level financial statements and does not cover the broader information set that is used internally by management and externally by investors and regulators.

Assurance on the financial statements taken as a whole does not imply an equal level of assurance on each of the component figures. For example, the measurement of the cash number is generally more precise than net receivables, inventory, or intangibles, each of which is often difficult to value. Moreover, with the advent of XML derivative languages and substantial integration of systems across the external value chain, there is an increasing role for assurance at the data level. The assurance profession should develop tools to define and assure data to be used in models and decision making throughout the reporting process. Vasarhelyi et al. propose a series of validation tools that encompass control tags, “cookie crumbs,” control paths, and aggregate estimates.<sup>16</sup>

### *Continuous Auditing and Reporting*

Continuous auditing is in its infancy. While it has been discussed among academics and practitioners for over 20 years, and some applications have emerged in leading companies like AT&T (Vasarhelyi and Halper, 1991), widespread use of this concept has not been adopted by the auditing profession or the business community. The cost of providing continuous assurance has to be lower than the perceived benefit of receiving such assurance. As stated by Jim Castellano, Chairman of the Board of the AICPA for 2002, in testimony before the House Committee on Energy and Commerce on February 14, 2002:

“Continuous auditing or continuous assurance involves reporting on short time frames and can pertain to either reporting on the effectiveness of a system producing data or more frequent reporting on the data itself. An AICPA task force has concluded that the enabling technologies, if not the tools, required to provide continuous assurance, are, for the most part, currently available. Their actual implementation will evolve with progressive adoption of the concept and the emergence of appropriate specialized software tools. Work is needed, however, to better understand the market potential for continuous assurance. A clearer insight is needed into both users’ needs as well as decision makers’ perceptions of the value of this service. A marketing study of user needs would help assess the types of key performance indicators, system reliability issues, and financial and nonfinancial information that would benefit users. Depending on corporate platforms and established monitoring processes used for other purposes, the costs of providing continuous auditing or assurance will vary. Therefore, further research is also needed to better understand how the potential purchasers of these services, such as management, boards, and institutional investors perceive the value of continuous assurance relative to the current model of periodic assurance.”

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<sup>16</sup> Michael Alles, Alexander Kogan, Miklos A. Vasarhelyi, and J. Donald Warren, Jr. *Continuous Auditing*. A Portfolio assembled by the Rutgers University Continuous Auditing and Reporting Laboratory for the Bureau of National Affairs, March 27, 2006, version 4.

To date, the application of continuous auditing has been primarily for internal reporting purposes in response to management demands for timely and accurate data. The auditing profession has not updated its audit risk model to incorporate the attributes of continuous auditing (for example, instantaneous exceptions and resolution and real-time reporting). As with many new technologies, it is not clear that the market demands continuous auditing for external reporting purposes at this time. It is likely, however, that the increasing shift to a real-time economy will create such a demand. As companies move from a bolt-on approach (where completed financial statements are tagged in XBRL after the fact for external reporting) toward XBRL tagging further back in the internal reporting process, at the general ledger or transaction level, embedded, automated continuous auditing modules can be put in place to “red flag” problems at the data level. As this process evolves over time, and internal and external reporting become more automated, the cost benefit ratio will start to shift in favor of a system with automated continuous auditing enabled by XBRL.

The shift to continuous assurance is beginning to be evidenced by the current regulatory environment, and more specifically, by the requirements placed on senior management by the 2002 Public Company Accounting Reform and Investor Protection Act, better known as the Sarbanes-Oxley Act. The Act and its supplements, together with stock exchange listing requirements, have created an environment requiring company management to develop and implement processes that provide assurance on the reporting system. Continuous auditing can facilitate the overall evaluation and testing of internal controls over financial reporting, and anecdotal evidence suggests that because of the Section 404 and 409 certification requirements, the benefits of continuous auditing will greatly exceed its costs.<sup>17</sup> These implications are equally valid outside the United States, as is the case for example under the 8<sup>th</sup> Directive on Company Law in Europe.

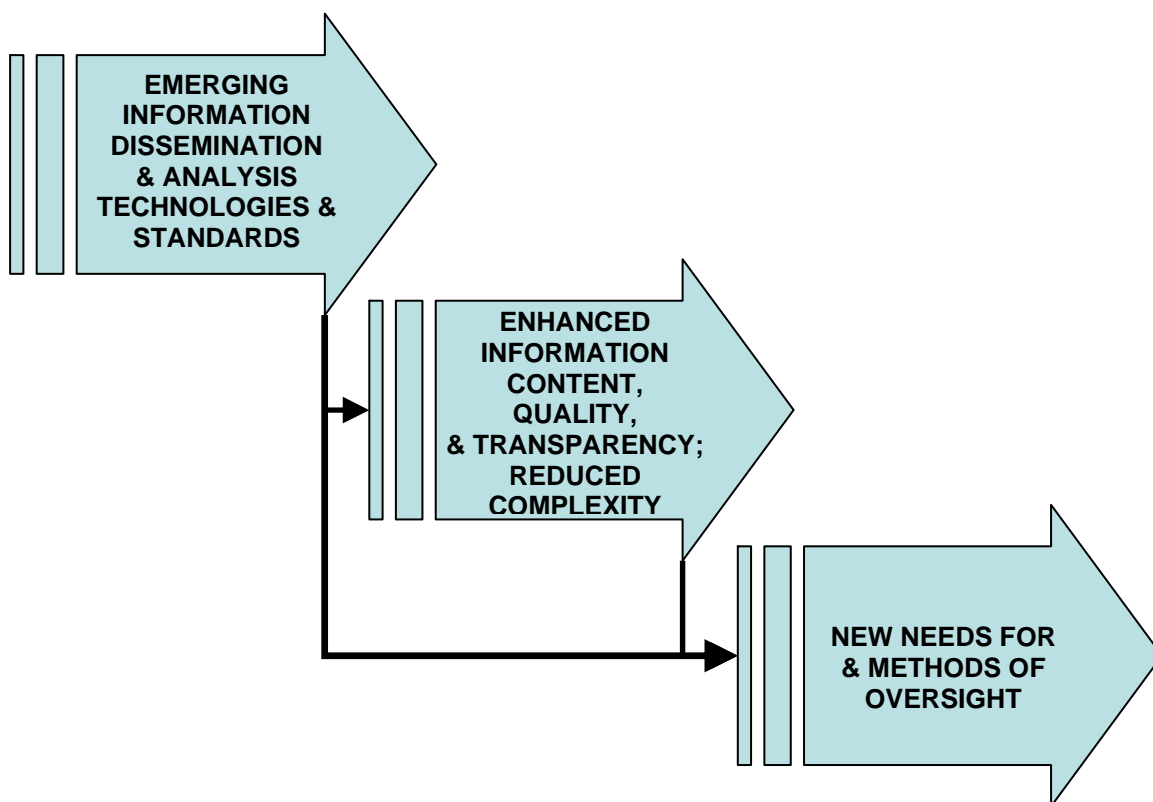
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<sup>17</sup> Michael Alles, Alexander Kogan, Miklos A. Vasarhelyi, and J. Donald Warren, Jr. *Continuous Auditing*. A Portfolio assembled by the Rutgers University Continuous Auditing and Reporting Laboratory for the Bureau of National Affairs, March 27, 2006, version 4.

## 5) The Way Forward: Critical Path Milestones and the Respective Roles and Responsibilities of Corporate Reporting Participants

While much has been and continues to be achieved, a number of additional steps should be taken to enable meaningful progress toward more transparent, relevant, and efficient global reporting processes. This section outlines what needs to be accomplished in order to achieve the migration path that is already under way, while specifically highlighting the roles and responsibilities of different participants in this process (*see appendix: Shifting Paradigm—Roadmap for a comprehensive, summary illustration*).

The need for collaboration among key stakeholders is a common theme:



*Enhanced technologies and standards for information dissemination enable more transparent, relevant, and efficient reporting practices and processes and can be leveraged to drive the evolution of business reporting and assurance to better meet the needs of the modern global economy.*

As covered in the previous section under the discussion of different distribution models and timelier reporting, the Internet and relevant standards such as XBRL are enablers of more transparent, relevant, and efficient business reporting. While it is possible to leverage the benefits of the Internet and XBRL for reporting today, those benefits would be enhanced by a global, coordinated, collaborative effort around XBRL taxonomy development for traditional financial reporting, either led through market driven efforts or under the auspices of regulatory bodies or standard setters, or both. Either way, the participation and input of preparers, intermediaries (including the accounting profession),

and users of financial information in these efforts is critical. The XBRL U.S., Inc. contractual commitment to the SEC for US GAAP financial statement and footnote taxonomies is an example, but similar efforts are also necessary in other jurisdictions around the world.

It also is desirable to ensure coordination of US GAAP and IFRS taxonomies in such a way that they facilitate progress toward the convergence of global reporting standards. As SEC Chairman Christopher Cox stated in his remarks before the 12<sup>th</sup> XBRL International Conference on November 7, 2006, “The global debates over the ‘right’ way to do accounting might never be settled. We may never have a global accounting Esperanto. But if the development of taxonomies for data tagging progresses sufficiently, some day in the future it may well be possible for the users of financial information to render it according to any accounting regime they choose: US GAAP, IFRS, or any other system.”

In addition to the global need for more robust XBRL taxonomies for financial reporting, software developers are working to develop more consistent, user-friendly tools for the tagging, validation, and rendering (that is, into a human-readable form) of information in XBRL format. Progress in this area has been accelerating and will greatly facilitate the ease and success of XBRL adoption around the world.

Moreover, more and more market participants see the broad benefits of XBRL adoption, it becomes more than an enabler of improved business reporting—it becomes a driver. Preparers of corporate information will realize XBRL-enabled efficiency gains in internal and external reporting and analysis capabilities, while users will realize gains in timeliness, quality, transparency, and reusability of information reported in XBRL format. In this environment, driven by the interactivity of the new model, users will likely demand more high quality, relevant information, and preparers will have the practical means at their disposal to meet this demand efficiently and effectively.

***New capabilities both facilitate and necessitate a fresh look at the information that is produced and consumed to ensure maximum value-add.***

#### *Alignment of Reported Content with Stakeholder Needs*

As stated in the preceding section, improved accessibility of information through interactive data technologies will drive demand for enhanced content as a result of increased transparency. XBRL also compels the development of a common Enhanced Business Reporting framework that could serve as the basis for XBRL taxonomies for corporate reporting of non-GAAP, non-IFRS information through MD&A, Management Commentary, annual reports, press releases, Web sites, and other means of corporate communication.

The high level framework developed to date by the EBRC is only a starting point. It is now necessary for preparers and users of business information to engage in the EBRC’s efforts to build out that framework to include industry-specific concepts. At the same

time, the EBRC also will collaborate with representatives of complementary efforts to build out certain subject matter areas of the framework such as those that cover intangible asset disclosure. Developing an XBRL taxonomy based on this expanded framework would enable investors to easily compare similar information for different companies, while also enabling investors to identify areas where useful information is not yet being provided. Ideally this would lead to demand for more meaningful and consistent MD&A disclosures that go beyond the inconsistent level of disclosures in the absence of additional guidance. It also would enable reuse of MD&A and Regulation S-K data across multiple forms (for example, 10-K, 10-Q, or S-1) to reduce the need for duplicate disclosures, one contributor to complexity in the current environment.

### *Addressing Complexity in Existing Financial Reporting Requirements*

Another key element in improving business reporting is a coordinated effort to reduce unnecessary complexity that detracts from the usefulness of disclosures. In the future, when stakeholders have access to more informative disclosures, such as those covered under the umbrella of the proposed EBRC framework, reliance on other detailed information that is provided under current requirements could decrease. While longer term efforts to address complexity will take this into account, there also are immediate opportunities for simplification of the current financial reporting process, for example, in the area of overly complex and lengthy footnotes. EBRC Reporting Simplification Task Force research project, which is focused on assessing the relative value of existing financial statement and footnote disclosures, is intended to provide evidence to support specific recommendations for simplification of existing requirements.<sup>18</sup>

In a *Journal of Accountancy* interview, SEC Chairman Cox was asked about the SEC's plans to address complexity and how the accounting profession can help. The Chairman responded

“The accounting profession is actually leading the charge in the war on complexity that the SEC has joined...The FASB and the SEC are working together to codify all the accounting literature, and the FASB is focused on particular subject areas that are notoriously complex, such as leases and intellectual property and pensions. The practitioners who have to deal with this complexity are in the best position to help us get it right. I see the profession playing a leading role here.”

Similarly, in his comments before the December 2005 AICPA National Conference on Current SEC and PCAOB Developments, the SEC Chairman stated that achieving success in the simplification effort would not depend simply on regulators, the government, and academics, but also on the accounting profession.

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<sup>18</sup> NASD Improving Disclosure to Investors grant recipient: Financial Reporting Simplification: Understanding Investor Decision-Making Behavior and Disclosure Preferences, Steve Sutton & Vicky Arnold (Kenneth G. Dixon School of Accounting, University of Central Florida), and Jean Bedard (Bentley College, MA).

Accordingly, in a June 27, 2007 press release, the SEC announced the establishment of the SEC [Advisory Committee on Improvements to Financial Reporting](#) (CIFiR), chaired by Robert Pozen. CIFiR is charged with “examining the U.S. financial reporting system with the goals of reducing unnecessary complexity and making information more useful and understandable for investors.” This committee plans to address issues and recommend solutions related to substantive complexity, the standard-setting process, the audit process and compliance, delivering financial information, and international coordination.

In May 2007, the U.S. Treasury also announced an initiative that aims "to enhance financial reporting, make the presentation of financial information more meaningful and accessible to investors and gain a better understanding of why financial restatements have increased over the past decade." According to U.S. Treasury undersecretary Steel, “We will also encourage managers, directors, and investors to focus on long-term value creation while maintaining frequent and accurate financial reporting.”<sup>19</sup>

There is also growing recognition of an increasing need for principles-based rather than rules-based accounting and auditing. However, others argue that rules are only problematic when they are overly complex, which they don't have to be. In their view, if we could get to simpler, more effective rules, they would serve as a viable alternative to principles.

Complexity on a global basis should be further reduced through the ongoing efforts of standard setters and regulators to drive international convergence of reporting standards. There remains a need for globally accepted financial reporting standards as well as agreement on disclosure of a wider range of business information to lay a foundation for consistent, timely, reliable, and transparent information access in the global financial markets. IFAC's IAASB is well along on accomplishing this, and the elimination of reconciliation requirements in the United States represents an important step in this direction as well.

***New information formats and content have implications with respect to the role and methods of oversight and assurance.***

As the business reporting system evolves in both format and content beyond the periodic, paper based historical financial reporting model of today, the scope and methods of independent oversight also will need to change. The need for independent assurance however, will remain. “Auditability must be an inherent characteristic of a business reporting system. The only meaningful reports are credible ones, and the basis of credibility in business is independent assurance. Hence, the ability to audit financial information has to be built into the financial reporting system, rather than having the auditor as merely an external inspector of the system's final output.”

Instead of auditing paper based, static, summary level reports, auditors will need to be able to certify the information systems used and underlying data elements. “A

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<sup>19</sup> Roy Harris, “Treasury Audit-Firm Study to Start This Fall,” [www.CFO.com](http://www.CFO.com), May 17, 2007.

reengineered financial reporting system will inevitably impact the role of auditing. If more information is issued more frequently, auditing will have an impetus to move away from an annual focus to a more continuous auditing model. Moreover, with more disaggregate information being reported [as a result of XBRL], auditing also will shift its emphasis away from verifying the way in which the firm aggregates and condenses its data, towards a broader conceptualization of assurance, particularly data level assurance.”<sup>20</sup>

This shift is not likely to take place all at once, but rather in a series of steps over time. Currently, increasing XBRL adoption around the world is creating the need for additional guidance around providing assurance on information reported in XBRL format. The AICPA’s Assurance Services Executive Committee XBRL Assurance Task Force is working to address this need and is developing a phased approach to meeting evolving assurance needs throughout the various stages of XBRL implementation.

In addition, required management certifications would likely provide fresh incentives for improved information system quality. Over time, it is expected that the tagging of company data will become less manual and more automated and will take place at or closer to the source. Under this scenario, the machine-readable XBRL instance document “is” the source document, and XBRL tagging and assurance are an integral part of the reporting and audit processes. It is at this stage that internal controls over financial reporting will have to be taken into consideration. As a result of the proliferation of disaggregated information that will become available, the ability to provide assurance over the integrity of information at the data level should also be considered at this point.

Accordingly, there is a need to consolidate and unify disparate views on information integrity by developing common criteria to underpin assurance services. However, whereas GAAP and generally accepted auditing standards (GAAS) help to determine the integrity of financial statements and related information, there is no GAAP or GAAS for the much larger body of information that is routinely, but not flawlessly, disseminated throughout the economy (and which affects many important decisions).

The AICPA Assurance Services Executive Committee intends to develop a set of criteria that could become widely recognized as the appropriate basis for reporting and providing assurance on data integrity. By making the criteria relevant, complete, objective, and measurable, assurance and attestation standards could be used as a framework for offering data integrity assurance. Companies also would benefit from such a framework through enhanced ability to control reporting.

Two other issues that the criteria will need to consider will be (1) how to set and communicate the context and boundaries for the degree of data integrity possessed by the information that is the subject matter of the assurance engagement and (2) how to relate the data integrity assurance to system reliability assurance based on SysTrust

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<sup>20</sup> Michael Alles and Miklos Vasarhelyi, *Reengineering Business Reporting: Creating a Test Bed for Technology Driven Reporting*, Rutgers Business School, October 2006.

(AICPA/CICA 2001) or other internal control work.<sup>21</sup> The first issue arises because absolute integrity is not economically achievable and because of the opportunity to customize the level of data integrity assurance conveyed (for example, via examination level, review level, agreed-upon-procedures level, or other level of assurance) to optimize the payoff to the purchaser of the assurance. The second issue arises because it may not be possible to convey meaningful data integrity assurance without undertaking some level of system reliability oriented work. In other words, data level assurance complements and builds on the progress that has already been made in the area of system reliability. By applying both the Trust Services Principles & Criteria that already exist for system reliability in conjunction with a new set of suitable criteria for data integrity, it should be possible to provide assurance on both the integrity of data and the reliability of the information systems producing that data.

It is likely that the future of audit and assurance will include an aggregate of many types of services, including system reliability and data level assurance. Ultimately, these services could be performed on a continuous basis, enabling the profession to better deal with the multiple facets of the real-time economy. The overarching message is that assurance processes will not only become more rigorous, but also more automated, and therefore, capable of delivering such rigor.

Finally, the AICPA will also assess the applicability and availability of Internet-oriented signature security protocols (digital signatures) to allow the consumers of business information to confirm under a new, automated reporting system that reported information is actually from the entity and that it has not been altered, regardless of where the information was accessed within the corporate reporting supply chain.

### ***Additional Issues to be Addressed in Facilitating Change***

In order for efforts to improve reporting and assurance to reach fruition, there is a need for improved safe harbor legislation to protect directors, managers, and others who make a good faith effort to provide more high quality, transparent disclosures. Liability reform is needed in light of the call for broader disclosures from preparers and, as a result, less objective assessments by auditors. A shift toward principles-based standards could also increase litigation risk, and efforts to mitigate this risk are required to enable progress.

It is also important to recognize that progress toward a more transparent, investor-desired reporting model need not compromise corporate strategic and competitive strategy. The more relevant, timely business reporting content and format that is advocated in this paper is not intended to promote the disclosure of confidential trade secrets or competitively sensitive information. Instead, it encourages companies to disclose information that allows an investor or other stakeholder to better understand value creation potential. Much of this information is already published by companies via Web sites, press releases, and other forms of communication, and what is needed is simply a more consistent and comprehensive approach.

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<sup>21</sup> J.Efrim Boritz and Eric E. Cohen, *Assurance for a Data-Centric World*, April 29, 2005 version, p. 14–15.

### ***Additional Notable Sources of Feedback in Establishing the Path Forward***

As of the publication date of this paper, the Center for Audit Quality (CAQ), an autonomous public policy organization affiliated with the AICPA, is in the process of conducting a national Public Dialogue Tour to discuss potential improvements to the quality, relevance, and integrity of financial reporting. The CAQ is visiting various regions of the country to hear directly from users of audited financial information and learn how business reporting might evolve to meet the information needs of all types of investors. The panelists and audiences are drawn from leading regional issuers, investors, current and former regulators, government officials, and academics. The goal is to facilitate a vibrant and robust discussion and move toward mutual consensus on the issues and, hopefully, on the future of business reporting. The public company auditing profession is present at Public Dialogue Tour events, but does not participate directly in the discussion. The profession believes it is important to hold these events to listen to the thoughts and ideas of other stakeholders in the capital markets. When the Tour is completed (in mid-2008), the Center's aim is to prepare a report with findings and recommendations to be shared with participants and policymakers.

## **6) Leadership Responsibility of the Accounting Profession**

As stated earlier, the current manual corporate reporting and assurance process needs to evolve to a more cost-effective, efficient model that is better capable of handling the increasing complexity of business and market needs and demands for reliable, automated, timely, and comparable information. The accounting profession, including CPAs in business and industry as well as those in public practice, has a critical role to play in driving this evolution, and the sustainability of the profession depends upon its success. Proactive leadership in the modernization of the reporting and assurance model is essential to achieving that success.

The accounting profession has long asserted that it was in the information business; however, to date, the profession has not earned a reputation for providing assurance on general business information in the same way in which it is associated with historical financial statements and tax filing information. Restricting the profession's focus to financial statements and tax filings puts the profession in a very small box relative to the vast expanse of information used in commerce today.<sup>22</sup> CPAs in both business and industry and public practice must be looked to as the group to rely on for the integrity of information throughout the corporate reporting process based on their unique knowledge base from which to address issues from an objective perspective.

At the same time, Internet standards and protocols (for example, XML and Web services) will help to reduce the risk of errors in exchanging data, as well as increase transparency and the evidence to support opinions. The greater the amount of data and the greater the frequency of disclosure, it will become increasingly necessary to rely on Internet

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<sup>22</sup> J.Efrim Boritz and Eric E. Cohen, *Assurance for a Data-Centric World*, April 29, 2005 version, p. 19, adapted from AICPA/CICA SysTrust, Principles and Criteria for Systems Reliability, version 2.0.

standards and protocols for the automated analysis of reported information. In today's environment of increased regulatory demands, efficiently handling more data, more detail, more often leads to the need to leverage standards in order to reduce the risk and delivery effort associated with today's and tomorrow's services.

All of these points are equally relevant to CPAs in industry and those in public practice. CPAs in industry will reap obvious benefits from taking a leadership role in helping their companies to adopt more efficient and effective reporting processes, enabling them to more efficiently cope with evolving business and regulatory reporting requirements. Similarly, by leveraging the opportunities resulting from the evolution of business models, technology, and reporting, the assurance community can deliver higher value services with more efficiency and effectiveness.

The current environment provides manifold opportunities for the accounting profession to take a leadership role. To do so, it must focus its efforts on modernizing the reporting model by addressing the imminent need for a broader "bandwidth" of information, different (automated) information distribution channels, timelier reporting, and new audit strategies and technologies. The alternative—failure to play a proactive and supportive role in a market-driven solution—undoubtedly will have a negative impact on the relevance and sustainability of the profession.

<b>Appendix: Shifting Paradigm - Road Map</b>			
	<u>What?</u>	<u>Who?</u>	<u>When?</u>
			(Short term = 1yr, Medium = 2-5 yrs, Long = 5+ yrs)
<b>Increase transparency in financial reporting by:</b>			
	Codification of US GAAP	FASB	Short term
	Convergence of US GAAP & IFRS	FASB/IASB	Short-medium term
	Build out Enhanced Business Reporting framework	EBR Consortium	Short-medium term
<b>Expand use of online, real-time reporting</b>			
	Increase XBRL use	SEC and other regulators, Businesses	Short-medium term
	Develop XBRL preparer guidance	XBRL US, AICPA	Short term
	Develop XBRL management certification	SEC	Short term
	Expand number & quality of XBRL analytic tools	IT vendors	Short term
	Continue taxonomy development for other public and private U.S. reporting streams	XBRL US	Short-medium term
	Provide safe harbors for companies and auditors who advance the state of the art	SEC, Congress	Medium
<b>Develop new audit strategies &amp; techniques</b>			
	Develop XBRL assurance framework	PCAOB, AICPA, IAASB	Short-medium term
	Develop new tools to continuously validate data	AICPA, IT vendors	Medium-long term
	Develop suitable criteria for data level assurance	PCAOB, AICPA	Medium-long term
<b>NOTE: The pace of change can be significantly affected by governmental and regulatory action. For example, the Sarbanes-Oxley Act Section 404 had a significant impact on the adoption of reporting on internal controls. The SEC's leadership has accelerated the adoption of XBRL. Tort reform could influence the pace of change.</b>			

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