

June 8, 2006

Nancy M. Morris, Secretary
Securities and Exchange Commission
100 F Street, NE
Washington, D.C. 20549-1090

Re: File Number 4-515

Dear Ms. Morris:

PricewaterhouseCoopers LLP appreciates the opportunity to provide feedback to the SEC and the participants in the upcoming roundtable discussions on various aspects of the use of the eXtensible Business Reporting Language (XBRL). We commend SEC Chairman Christopher Cox, the Commissioners, and the SEC staff for making the use of interactive data one of the SEC's top priorities. We believe that with strong SEC support, as well as with the support of other capital-market participants, XBRL will have a positive impact on the future of corporate reporting.

We support the SEC in its efforts to encourage registrants to use XBRL as part of its Voluntary Filing Program. We believe that this program is the best way to test and analyze XBRL data. Further, the Voluntary Filing Program will be enhanced by the collaboration of market participants, including the SEC, in the development of appropriate taxonomies, software applications, and other tools that will continue to enhance the production, consumption, and analysis of information contained in business reports. Through the upcoming roundtable discussions, others will be able to learn from the initial group of registrants and users about XBRL and how Internet standards and protocols can enhance business reporting and analysis. The roundtables, which will include various corporate reporting supply-chain participants, will be an excellent public forum to learn about the benefits of (and the impediments to) XBRL by those with various perspectives. This should encourage others to take advantage of the opportunity to use XBRL.

In the pages that follow, we provide our observations regarding the costs of and impediments to implementing XBRL. We also have included a number of suggestions that we believe will help to achieve broader acceptance and use of XBRL, including the following

- A more concerted awareness effort and collaboration among many different capital-market participants, and

- Infrastructure changes and/or process enhancements including those related to taxonomy development, enhanced assurance standards, enhanced delivery mechanisms, and expanded authentication/integrity capabilities.

Finally, we have included, as an Appendix, a summary of a number of issues faced by the current business-reporting supply chain and the related benefits that can be derived from XBRL. We believe that a clear understanding of the issues encountered by capital-market participants will improve the appreciation of how XBRL can alleviate these issues and provide benefits to each participant in the supply chain.

We look forward to participating in future discussions on the market's adoption of XBRL.

We would be pleased to discuss our comments with the Commission and its staff and answer any questions that the Commission or its staff might have. Please do not hesitate to contact Mike Willis (813-340-0932), Jay P. Hartig (973-236-7248), or Raymond J. Beier (973-236-7440) regarding our submission.

Sincerely,

PricewaterhouseCoopers LLP

XBRL - Costs and Impediments

Although XBRL is freely available, we expect that companies and stakeholders will incur one-time costs in the implementation of XBRL-related process enhancements. Such costs could stem from license updates for more current software that can support XBRL, education and training, consulting services, and efforts to enhance processes and to define company specific standards and extensions. The costs are likely to vary widely among companies, depending on the extent and quality of a company's current reporting processes and personnel, as well as the depth of XBRL implementation.

There are numerous other implementation considerations that must be addressed by various parties to achieve full market implementation of XBRL, including enhancements to relevant reporting taxonomies, software applications, and issues surrounding information security/authentication.

Following are several other factors that might impede adoption of XBRL, which are more subjective and involve attitudes and perspectives that may require a change:

- A common misconception about XBRL is that implementation requires a massive replacement of existing enterprise-wide systems with XBRL-based systems. XBRL is not a system; it enhances the interfaces between existing systems. Therefore, XBRL does not require proprietary hardware or software, and it need not be implemented at on an “all-or-nothing” basis or at an enterprise level. Users often need a solution that will simplify and provide greater accuracy in internal and external reporting without a wholesale technology overhaul. XBRL allows information within existing systems to be more accessible, transparent, and reusable by other applications — enterprise resource planning (ERP), business intelligence, spreadsheets, risk analysis, and others. Building on this capability can, and should be, gradual and step-wise, with the focus initially on high-value processes.
- Reporting entities might believe that easy access to information and increased transparency creates a competitive threat. However, we believe that this perspective misses today's reality, in which the majority of analytical source material is obtained from data aggregators. The issue facing companies is not "more versus less information," but rather the correct, controlled information versus the potentially inaccurate/incomplete information that can be produced and adjusted by third-party information intermediaries.
- Many participants in the business-reporting supply chain need to understand what information flows into the capital markets, where it is

obtained from, how it is being changed, and how it is being used, and understand their specific roles in the supply chain. Participants should also consider whether their current processes for managing that information are still relevant. Participants must first gain in-depth knowledge of how XBRL can enhance their processes, and then implement best practices and develop adequate governance over the enhancements.

- Many of the current participants in the Voluntary Filing Program apply tags to their reports after they are ready for filing, as opposed to tagging information earlier in the reporting process. This incremental approach adds to the cost of compliance and is a disincentive for adopting XBRL. Applying the tags earlier in the reporting process, as an export from the consolidation and reporting application, will reduce costs, enhance controls, and enable a more streamlined process.
- XBRL support within relevant software applications is still in an early stage of development. Vendors are, however, making rapid advancements with XBRL-related features. As XBRL-enabled tools become more readily available, implementation costs will continue to decline.
- Some registrants currently view XBRL as a potential regulatory requirement that they should approach on a "wait and see" basis or implement only when mandated. Registrants should instead consider regarding XBRL as something beneficial to them, taking into consideration cost savings, control and analysis enhancements, and more timely and accurate data that can be used for decision making. As implementation of XBRL proceeds, we expect that experience will validate these economic benefits, which have already been realized by other supply-chain participants and registrants.
- Taxonomies must represent the complete, industry-specific information concepts that registrants believe are relevant for their stakeholders. There are several pertinent issues in this area including those listed below (see also the section entitled, A Path Forward):
 - At the present time, taxonomies do not represent the full range of disclosure concepts or the full range of unique industry-specific disclosures.
 - The current taxonomy-development process lacks an adequate funding structure and does not fully include the breadth of supply-chain participants necessary for a sustainable dialogue about relevant reporting concepts.
 - Preparers' perceptions include the false impression that taxonomies are inflexible standardized descriptions that companies are forced to use.

- Consumers incorrectly assume that XBRL addresses the current desire for enhanced comparability of reported concepts.

We believe that these barriers to full market adoption of XBRL can be overcome with proper market collaboration, as discussed below.

A Path Forward

We believe that to improve business reporting through the increased use of XBRL, a collaborative effort on the part of many different capital-market participants is needed, including the SEC and other regulators, standard setters (such as the FASB), registrants, users of business information, and other parties. Market participants need to share this common goal and realize that a market-oriented collaborative process, such as the development and management of XBRL, can be a means to achieve this goal.

Increased Awareness, Education, and Collaboration

Although some market participants understand and have experienced the benefits of XBRL, we believe that a more concerted awareness effort is needed to achieve broader acceptance and use. Following is a list of steps that the SEC (and other parties, as appropriate) might consider taking to help market participants realize XBRL's benefits more quickly:

- Continue the roundtable discussions so that more market participants can broaden their knowledge of XBRL and recognize its benefits
- Promote awareness through increased SEC Staff participation in market events, such as relevant conferences¹
- Facilitate market efforts in dealing with implementation issues
- Promote the development of a market-driven, collaborative supply-chain taxonomy development effort
- Encourage participation in the SEC's voluntary program (e.g., the recent incentive program has provided additional benefits)
- Proactively solicit input from market participants by establishing various vehicles for market feedback
- Continue sharing XBRL information, implementation considerations, and best practices among entities (e.g., federal agencies, industry-specific groups, independent auditors)
- Facilitate the development of assurance standards that are appropriate for information provided in the XBRL format

¹ See www.xbrl.org/us for a selection

Education for capital-market participants is critical both in the short term and the long term. In the short term, participants in the capital markets need to learn about problems in the existing supply chain and understand the benefits of using the Internet and an information standard such as XBRL (refer to Appendix A). Increased knowledge is also critical in the long term to improve the technology and taxonomies and keep abreast of rapid developments. There will also need to be a mindset change for some capital-market participants regarding how technology plays a critical role in enhancing business reporting. As the business-reporting supply chain continues its migration to the Internet, many more participants will need to become increasingly aware of these concepts, benefits, and implementation considerations. The sooner market participants accept and embrace this inevitable technological change, the better they will be able to shape and influence developments in this arena.

Mutual funds, which are both consumers and producers of information about business performance, are in a unique position. By the nature of their market-interface function, they can significantly influence the adoption of XBRL and benefit both their customers and shareholders, through their involvement in taxonomy-development efforts and by exercising leadership regarding the education about and use of XBRL.

In addition to the roundtable discussions, there are other opportunities for learning about XBRL from those who have had hands-on experience. It might be helpful to establish specific user groups, similar to the FASB's User Advisory Council, that meet on a regular basis to discuss issues and facilitate knowledge sharing. In addition, the U.S. capital markets can, for example, learn from their domestic, as well as international, counterparts that are currently using XBRL. The table below identifies some of the countries and entities that have already adopted XBRL-enabled processes and reaped economic benefits. In order to remain globally competitive in the long run, the U.S. capital markets need to accelerate a more widespread adoption of XBRL.²

Supply-Chain Elements/ Participants	Countries/Organizations with Leading Best Practices
Company Registration	Australia ³ , United Kingdom
Stock Exchange	China, Japan, Korea, Spain
Stock Exchange Regulator	China, Netherlands, United States, Spain, Taiwan
Standard Setter	IASB
Banking Supervision	Australia, Japan, United States, Spain ⁴
Anti-Money-Laundering	Spain
Tax Agency	Australia, Japan, Netherlands, United Kingdom

² http://www.aei.org/publications/pubID.24046/pub_detail.asp

³ <http://www.apra.gov.au/Statistics/XBRL-Non-ADI.cfm>

⁴ <http://www.bde.es/homee.htm>

Infrastructure Changes

Market adoption of supply-chain standards typically requires changes in infrastructure that are agreed to and desired by the supply-chain participants. There are a number of infrastructure changes and/or process enhancements that need to take place if market participants are to realize more fully the benefits of supply-chain standardization, including those related to:

- 1) Taxonomy development,
- 2) Collaboration with other governmental agencies,
- 3) Assurance standards,
- 4) Delivery mechanisms, and
- 5) Authentication and integrity features.

Taxonomy Development

A sustainable taxonomy-development process is needed to ensure confidence in the XBRL-enabled reporting process. We have several suggestions regarding the taxonomy-development process:

- XBRL taxonomies should be developed, managed, and maintained by one or more organizations that have a permanent interest in the vitality, completeness, and accuracy of reporting concepts relevant to the U.S. capital markets. It is important to have dedicated staff in the organization(s) with overall responsibility.
- The development process should be a collaborative and transparent process and should directly include preparers, consumers, and intermediaries. The primary responsible organizations that should directly participate include the Financial Executives International (FEI), Chartered Financial Analysts Institute (CFA Institute), Securities Industry Association (SIA), American Institute of Certified Public Accountants (AICPA), Investment Company Institute (ICI) and other specific professional and industry-sector groups as appropriate. Most importantly, preparers and consumers must engage in a dialogue about reporting frameworks, concepts, definitions, and the priority of development and maintenance efforts.
- A new or existing market-standards body should take overall responsibility for driving taxonomy development. The Financial Accounting Foundation may be a likely candidate for establishing a new body under its oversight; however, the standards-development process must incorporate the supply-

chain participants directly in the process rather than limit their involvement to a review/comment process.

- The taxonomy-development process should involve a collaborative component that directly engages the taxonomy-development efforts that are underway at the International Accounting Standards Board (IASB). This component of the process should facilitate the convergence of the taxonomy concepts used in U.S. GAAP and IFRS.
- Input on taxonomy development should be facilitated via Internet-based, collaborative working environments. This will enable broader and more timely participation by market participants at lower costs instead of having to arrange physical meetings or collaborate via email.
- The taxonomy process should address the complete range of business-reporting concepts, including those (1) promulgated in GAAP and (2) used in the Management's Discussion & Analysis section of company reports. We propose that existing frameworks, such as those proposed by the Enhanced Business Reporting Consortium⁵, be considered and leveraged in this regard. There may be other relevant reporting frameworks that should be considered, such as the Global Reporting Initiative (GRI) G3 Framework⁶.
- Taxonomy development should take into account the depth of common note disclosures as well as concepts specific to certain industry sectors. The concepts that are specific to particular industry sectors should be developed, maintained, and managed through the direct involvement of appropriate representatives from the respective industry sectors.
- Additional information that the SEC currently requires registrants to include in the forms that they file should be assessed to determine how best to articulate them within XBRL taxonomy structures. For example, Form 12b-25 contains information regarding a company's inability to file certain required reports on time. The SEC should focus on developing a taxonomy for the relevant information that is to be included in that and other statutory forms. The SEC should retain complete responsibility for this type of taxonomy development but should ensure that the taxonomies developed are consistent with the generally accepted market and industry-specific taxonomies.

⁵ <http://www.ebr360.org>

⁶ <http://www.globalreporting.org>

- Reporting standards that are promulgated by standard- setting bodies (e.g., the FASB, SEC, and IASB) should directly incorporate the taxonomy process in a timely manner.
- Funding should be provided either directly or indirectly by supply-chain participants. Although the accounting support fee that was established by the Sarbanes-Oxley Act is an obvious funding solution, it places responsibility for funding solely on the preparer community. We believe that the XBRL Reference Linkbase could be used as an access-oriented platform that would generate "access fees" from market participants that have an interest in directly reaching both producers and consumers with their products, services, and/or intellectual property. Such market participants might include content providers, data providers, providers of benchmarking services, best practices consultants, and other types of consultants.
- Taxonomy components relevant to all supply-chain participants may deserve priority attention. For example, the concept of an entity appears to be a simple one; however, the definition of the term 'entity' is very complex when the range of relationships engendered by an enterprise, registrant, and/or investor is taken into consideration. We believe that certain taxonomy components (e.g., the definition of 'entity') that have a high value proposition for all supply-chain participants should be made a top priority in the assessment of taxonomy development and implementation.
- A secure delivery of agreed-upon market taxonomies is needed. Currently, U.S. GAAP taxonomies for XBRL are located on the website XBRL.org⁷. XBRL is a consortium of supply-chain participants that have developed a technical specification based upon the Internet's Extensible Markup Language (XML) standards. These market participants have technical expertise in the development of the language; however, it is likely that some participants will not have the domain expertise required for participation in the development of business-reporting frameworks, concepts, definitions, and other relevant standards nor is it likely that XBRL.org will continue to have a lead role in developing such standards. Therefore, the U.S. reporting taxonomies should be relocated to an Internet location that is representative of its prominence and relevance to all capital-market participants, and is aligned with the above described changes in the development process and responsibilities. This Internet location should also be aligned with the Reference Linkbase access fees funding suggestions provided above.

⁷ <http://www.xbrl.org/FRTaxonomies>

Collaboration with Other Governmental Agencies

Although collaborating with other governmental agencies would not be an infrastructure change, we recommend it because we believe that such cooperation would have significant benefits for all supply-chain participants, primarily producers and consumers. As demonstrated by the Dutch Taxonomy Project and the FFIEC Modernization Project, significant compliance-cost savings can be realized when governmental and regulatory agencies collaborate in their request for compliance information from both private and public companies. Because XBRL is information-centric, rather than forms-centric, it enables the development of taxonomies that contain reusable concepts that may be applicable to more than one governmental-agency consumer. If preparers can provide information one time, and that information can be reused across multiple governmental agencies and regulators, significant economic benefits can be realized.

A specific example of such collaboration within the U.S. could be the proposed rules of the PCAOB for periodic reporting by registered public accounting firms. The SEC might work with the PCAOB to agree on how the proposal can benefit from electronic, standards-based reporting that would enable the required data to be integrated with data reported by SEC registrants. The benefit would be better linkage of the information reported by a firm with the entity it audits. A secondary benefit would be to limit the extent to which the paper-paradigm infrastructure will grow.

For registered public accounting firms, the benefits of exchanging data rather than exchanging forms with relevant regulators are the benefits that are discussed in this submission. Public accounting firms must communicate with federal and state regulators, the PCAOB, the SEC, and similar bodies in jurisdictions around the world. The benefits that banks and banking supervisors, the public and others have all achieved through the use of XBRL are the same benefits that will accrue to public accounting firms when they use XBRL to facilitate transparent communication in their information supply chain.

Additionally, it would be useful for the SEC and other U.S. governmental agencies to more proactively collaborate with other relevant standard-setting bodies such as the Organization for Economic Co-operation and Development (OECD), the Organization for the Advancement of Structured Information Standards (OASIS), and others. It is in the best interest of the SEC (and other market participants) that an appropriate framework be established to support the business requirements of the capital markets as well as those the SEC foresees for its own operations. Collaboration and active participation on these market standards activities will benefit all involved in the supply chain.

Assurance Standards

We recommend that assurance standards be enhanced so that they are more relevant for investors that are accessing, validating, and analyzing company information reported in interactive data formats, including XBRL. We believe that in the U.S. the PCAOB is best suited to do this. We are currently working with other registered public accounting firms and other territory-based assurance-standards bodies to develop suggestions for enhancing assurance standards that can be presented to the International Auditing and Assurance Standards Board (IAASB) via an XBRL International Assurance Working Group. Some of the areas of enhancement identified to date include, but are not limited to:

- Reporting on financial and/or business information presented in electronic format and disseminated over the Internet;
- Addressing whether there should be an electronic connection between the auditor's report and the company's report to enhance the consumers' identification of information with and without assurance. The current connection between the auditor's report and the company's report must be made manually and is not useful to investors who use a company's reported information over the Internet;
- Assessing the relevance and/or connection that assurance regarding the company report "taken as a whole" has with respect to the individual information concepts tagged in XBRL within the company report;
- Addressing the authentication of the auditor's signature and report and its relationship to the company's reported information;
- Addressing whether existing assurance standards are adequate for company reports that are obtained for analysis via a Web service;
- Assessing how reporting concepts or relationships between information implicitly included in financial statements are addressed when they are explicitly articulated in XBRL, thereby introducing the potential for inconsistency and potentially representing a requirement for additional verification. Examples may be the currently implicit understanding that Total Assets are equal to Current and Non Current assets or that Gross Profit is Sales less Cost of Goods Sold. These implicit concepts are however explicitly stated as facts in an XBRL document and its associated discoverable taxonomy set.
- Determining if/how presentation concepts should be addressed by assurance.

Delivery Mechanisms

The SEC Staff is to be commended on its introduction of the SEC's Really Simple Syndication (RSS) Feed for XBRL filings and other relevant information. This is a significant enhancement to the delivery and transparency of reported information.

We believe that use of Web services for the delivery of information is beneficial to market participants and we encourage the SEC to continue its efforts. The following are some recommendations that may enhance the delivery, reuse, and analysis of information that is available via either the existing SEC XBRL RSS Feed and/or subsequent Web-services models:

- Expand the metadata to include the respective Form Part and Item information topics, and the Report of Independent Registered Public Accounting Firm
- Formalize this feed into several structured distribution channels:
 - XBRL RSS Feed - for basic overview information
 - XBRL Web service - for complete information
- Update the feed on a real-time basis as participants' filing volumes increase
- Provide a feedback mechanism so that market participants can suggest ways to enhance the information provided via this Web-services feature
- Enhance the authentication and data integrity features for the publicly available information to protect investors from potential manipulations and subsequent reuse

Authentication and Integrity Features

As in any communication system, several different aspects of security should be considered relevant. Authentication and integrity capabilities of company-reported information and the assurance reports thereon should be enhanced. Market practices need to enable a process that will apply to company-reported public information and the related auditor reports. This authentication and integrity model should be scaled for delivery of content via website access and Web services. Application of this type of solution should be across a broad variety of filings, reports, and forms for a wide range of stakeholders.

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Appendix A: Observations on the Current Status of the Business-Reporting Supply Chain and the Significant Benefits from Employing XBRL

Today's business-reporting supply chain generates, distributes, obtains, analyzes, and acts upon business information. These functions are largely driven by a set of manual-intensive processes. Applying manual processes to information at various stages in the supply chain can be costly, inefficient, and increase the risk of human errors. This appendix highlights some of the critical issues specific for each supply-chain participant. Additionally, in order for participants to voluntarily adopt XBRL for their internal and external reporting processes, they will need to clearly understand the benefits that would accrue to them from doing so. We have summarized some of the benefits and how the implementation of XBRL could contribute to improve the quality and effectiveness of the business-reporting supply chain.

The Reporting Entity

Today's corporate-reporting processes include a pervasive set of manual aggregation and consolidation processes that are designed to access, validate, aggregate, and analyze information from across a wide range of disparate internal data stores. The detailed elimination information that the underlying business units must furnish for consolidation purposes is frequently developed through manual processes rather than being embedded in the furnished information. Even if an entity maintains a seamless accounting and financial reporting process, the preparation of multiple internal and external financial reports usually occurs in Adobe and/or an "Office" desk-top productivity solution with manual review, validation, and control processes. Furthermore, these manual processes generally occur independently for each reporting period and each reporting requirement, which can result in increased costs and efforts as well as an increased risk of errors.

Reporting entities also experience continual internal changes due to events such as acquisitions, dispositions, and international expansions, each of which results in unique compliance and reporting challenges. For instance, acquired entities may have different accounting policies and divergent definitions of information elements (e.g., what constitutes sales) that need to be integrated promptly and accurately to form a cohesive business reporting model for the entire entity after a significant transaction. Over time an inefficient mix of incongruent systems and solutions may develop. These unconsolidated processes, differing information architectures, and disparate storage applications can result in significant reliance on manual procedures, which can result in extended reporting timelines, excessive resource demands, and exposure to inconsistent, untimely and/or incorrect reporting to internal and external audiences.

The benefits of XBRL for the reporting entity depend on the level of XBRL implementation and to what extent XBRL is applied to the above issues. To fully

benefit from this standardized information format, the entity should consider thoroughly integrating XBRL throughout its entire reporting process and not solely consider it as an add-on at the tail end of the compliance-reporting process. Benefits include the following:

- Lower cost of producing information - XBRL can reduce the cost of, and streamline processes for, collecting, validating, analyzing, and reporting business information.
- Fewer compliance forms - Companies may be required to file fewer statutory compliance forms as regulators collaborate on reusable taxonomy concepts. This was demonstrated by the FFIEC Call Report Modernization effort and the Dutch Taxonomy Project currently underway.
- More timely and accurate data for decision making - XBRL tagging enables automated identification and processing of business information, which may greatly increase the speed of handling data and eliminate the need for error-prone, manual processes. As a result, data is more accurately reported.
- Control over the story - Since the reporting entity directly tags its own data, management will have comfort that what they have reported has not been changed by third-party information intermediaries, which regularly normalize and adjust company information.
- Enhanced control environment - Standardized information enhances the application of automated controls across disparate applications, and strengthens the internal audit trail.
- Enhanced functionality and analytical capabilities - XBRL enables companies to quickly analyze results, compare their performance with competitors, and link information with internal policies and external compliance standards (e.g., FASB and SEC rules), thus supporting a company in complying with applicable internal and external policies and rules.
- More effective access to international capital markets - As foreign counterparts embrace XBRL at a rapid pace⁸, U.S. registrants create a higher cost barrier to information access and reuse. XBRL flattens the

⁸ For example, <http://xbri.kosdaq.com>, <http://www.xbri.org/Announcements/China-Taxonomies-27Sept2005.htm>, http://www.tse.or.jp/listing/xbri/english/0_e_xbri_top/e_xbri_top.html

playing field and allows U.S. companies to remain competitive in the market for international capital.

Stakeholders, including Investors and Creditors

The current 'paper centric' nature of reporting business information affects outside stakeholders in obtaining and analyzing information about an entity's performance. We believe that there are misconceptions by reporting entities about the nature of information actually used by outside stakeholders, and the source for the relevant data. As an example, a typical annual report may include in excess of 3,500⁹ unique information concepts, of which interested parties regularly timely include less than 400¹⁰ in their analysis. Users of business data may not even consider highly relevant information such as pension, stock-based compensation, and other fair value assumptions in evaluating an entity's performance due to the high costs incurred to obtain these relevant data points because they are disclosed only deep within the companies financial statement footnotes.

Another example is the belief that an entity's reports and public communication efforts are the primary source of information for investors. In contrast, based on our discussions with investors and analysts, we understand that investors acquire the large majority of relevant information, including financial data, from sources not controlled by the reporting entity. These information intermediaries employ automated parsing technologies and manual resources to parse public filings and other data sources into standardized and electronically reusable data. Because standardized parsing uses proprietary third-party data models, the resultant information may not accurately reflect or may entirely omit portions of the entity's intended communication objectives.

The high cost of obtaining relevant detailed information from the "paper-centric" reports also limits the scope of information that analysts' models can incorporate in a timely manner, thereby potentially adversely impacting the quality, timing, and extent of analysis performed. It is our understanding that the majority of the publicly-traded companies in the U.S. do not receive regular coverage by investment analysts and that the number of companies with sell-side analyst coverage continues to decline. While this might be expected in a capital market where the vast majority of the market capitalization is represented by a relatively small number of public companies, a more effective access to business information may increase coverage to other market segments and support overall effectiveness of the capital markets. A recent study¹¹ indicates that lack of coverage may result in higher capital cost for the affected company of up to 140 basis points. Regardless of the cause, the lack of

⁹ Examples at <http://www.onesource.com> and <http://www.compustat.com>

¹⁰ Based on PwC research on investors' models

¹¹ "[SEC Regulation Fair Disclosure, Information and the Cost of Capital](#)", 2004, [Wharton School](#)

transparency, access to, and reuse of information may limit capital access by registrants and may also limit an investor's ability to completely, accurately, and timely analyze a company's financial position and performance.

The current 'paper centric' and resulting manual nature of the information supply chain processes also requires analysts to apply manual processes of their own. Analysts typically use spreadsheet software to import and/or cut and paste reported data into their models. Their analytical business rules or macros are based on the physical location of the data within their individual spreadsheets and therefore are neither easily transferable nor reusable by other parties. Review of the modeling analytics is required at the individual worksheet level and is therefore also very manual in nature.

Finally, relationships between reported information and information sources (e.g., reporting standards used in generating the reported information, relevant analytical benchmarks, best practices and expertise in developing analysis, language of the source data, etc.) are currently based on the implicit knowledge and experience of the user or analyst and not retained in the analytical material. These waterfall effects of 'paper centric' information adversely impact the development, sharing, reuse, and management of analytical intellectual property, which has been developed with time and monetary efforts, and other analysis resources that are helpful to investors.

Although all investors theoretically have equal access to company-reported information, some investors lack the necessary resources to obtain such information in an efficient and timely manner. Being able to use information in the XBRL format would be beneficial to all investors because of the improved economics of access, reuse, and analysis of company reported information. It enhances the transparency of information provided by companies for investors and in doing so will provide a more balanced playing field for all investors and for all companies. Some of the specific impacts of XBRL are highlighted below:

- Lower cost of obtaining and analyzing information - Stakeholders will be able to obtain and analyze reported business information in a fraction of the time it takes today, and in a more efficient manner, thereby lowering the cost of obtaining and analyzing information.
- More timely and accurate information for decision making - Users of business information will be able to extract more reliable information in real time. Accuracy is improved due to automatic checking of information and the reduced likelihood of errors through elimination of existing manual transformation processes.
- Enhanced analytical capabilities - XBRL speeds the flow of supply-chain information while also increasing the volume of information that is reusable

for analysis. Routine analysis can be expanded at little or no cost with additional information elements (e.g., additional information about the analyzed entity or increased number of benchmarks).

- Enhanced comparability - As market participants engage in a dialogue over taxonomy development and reporting concepts become more clearly defined, stakeholders will be able to understand better what information registrants have included in their reports, thereby enabling better, more accurate analysis and comparisons.
- Enhanced use of analytical intellectual tools and processes – Because the use of XBRL is not limited to any specific software application, it allows for a more efficient use of proprietary analytical tools and processes. The increased and facilitated reuse of analytical modeling concepts for the analysis of numerous entities via the XBRL Formula Linkbase is a useful benefit for fund sponsors and other stakeholders.
- Facilitation of language translation – Data tagged in XBRL can be readily translated into multiple languages, thereby enabling analysts to more timely and easily access foreign company reports in their own local language rather than the preparers' 'foreign' language.
- Governance via proxy assessments - An investor's assessment of management's performance and compensation information can be as costly to perform as an assessment of other information included in company reports/forms. Increased use of XBRL for such information will improve investors' ability to quickly, cost effectively, and timely access relevant information over the Internet for proxy assessments. A related benefit for registrants may include lower costs associated with proxy administration through use of the Internet rather than via the current paper-based manual processes.
- Increased coverage - With XBRL, investors can analyze a broader group of companies in both the public and private markets.

Oversight Functions

Today's reporting supply chain also presents substantial issues for the various oversight functions, including, for example, the volume of registrant filings reviewed by the SEC. Regulators around the world are moving towards a more proactive risk-management-oriented approach, identifying issues before they become big problems. In order to accomplish this, regulators need to have more cost-effective access to the information in reports so that they can more effectively enhance their analytical

procedures and obtain related analysis results in a timely manner. Some oversight authorities recognize the problems with their current processes and have taken action, as exemplified by the following cases:

- The five banking supervisors in the U.S have modernized their regulatory function, creating a common reporting and analysis process based on XBRL¹². XBRL has increased the timeliness and accuracy of periodic reporting by all banks and financial institutions, while decreasing associated costs.
- The Netherlands is using XBRL to engineer a nation-wide reorganization of the process that companies use to report to authorities. An analysis of all reporting requirements to the various Dutch authorities identified approximately 26,000 information elements in over 3,000 forms, many of them redundant. The authorities' stated objective is to decrease by 25 percent¹³ the administrative burden that companies experience to comply with reporting requirements. The project has resulted in the identification of less than 8,000 unique data elements and the potential to reuse reported information across government agencies, thereby providing the potential to eliminate over 90 percent of existing forms. The Netherlands' project is based on the collaboration of the governmental agencies and a conceptual shift from a "forms" to an "information" perspective largely enabled through the use of XBRL and the inherent possibility of re-using the same reported information for multiple purposes without creating another form.
- Numerous taxing jurisdictions have also benefited from XBRL by implementing filing systems based on that format.

The impact of XBRL on regulatory processes includes the following:

- Faster access to significantly more information from company reports
- More timely, accurate, and relevant data for analysis
- Enhanced analytical capabilities
- Enhanced functionality of reported information (e.g., to enhance analysis and review procedures)
- Reduction in the types of forms and in the number of forms processed
- Enhanced information for investor analysis and to help investors protect themselves
- Lower infrastructure costs resulting from leveraging Internet-based information and protocol standards

¹² <http://www.ffiec.gov/find/default.htm>

¹³ <http://www.xbri-ntp.nl/english>

- Greater flexibility that allows a more timely promulgation of prospective compliance changes

Over 50 regulators around the world have begun adopting XBRL-enabled processes, with about a dozen of those regulators having already moved into a production environment¹⁴. As of the end of 2005, over 30,000 companies around the world have reported in the XBRL format.

The Assurance Function

The shift in the use of business information from a paper-centric model to an information or element-oriented model also has fundamental consequences for the assurance function. The parsing and consumption of single data points from a company report is substantially disconnected from the current audit opinion on the fair presentation of the financial statements "taken as a whole." The consumer of the XBRL tagged data does not have the ability to directly link the requested information to the respective opinion and, potentially unbeknownst to the user, the requested information may not even be covered by the scope of the assurance report as the information may be outside of the company's financial statements.

In addition, as users of business information continue to shift their focus from the financial statements to other sources of business information, such as MD&A and non-filing documents, the assurance function must enhance its delivered value proposition and continue to evolve in the Internet centric business reporting supply chain.

Additional work by the PCAOB and other market participants will be necessary to develop appropriate assurance standards for XBRL-formatted information to address these issues.

XBRL will also benefit auditors and facilitate a shift from audit procedures and processes focused on manual data access, validation, and analysis. Some of the developments will include the following:

- Enhanced analytical capabilities and risk management - The ease of accessing increased amounts of relevant data should enable auditors to focus more on analytical and automated audit approaches. Unusual or noteworthy transactions and inconsistencies should also be easier to identify.

¹⁴ <http://www.companieshouse.gov.uk/>, <http://www.hmrc.gov.uk/e bu/corporation-tax-online.htm>

- Increased efficiency and effectiveness - The more reusable nature of entity-specific data will facilitate a more efficient audit and facilitate increased investment in analytical processes.
- Increased scope of services - The application of XBRL to company-reported information may increase the scope of assurance and attest services applied to a broader range of company-reported information than is currently the case.
- Addressing the "Expectation Gap" - The above attributes enable auditors to more cost effectively access and analyze greater levels of company and market information thereby enabling more effective processes to address the current expectations gap between what auditors are currently responsible for and what the market expects.

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