



UNITED NATIONS
DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION

Closing the Gap

**Report on Addressing Information Gaps between Business and
Macro-Economic Accounts to Better Explain Macro-Economic Performance**

Prepared by Dr. Roland Burgman

July 2008

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Contents

Introduction	1
Information gaps.....	2
Business models.....	3
A corporate responsibility view of corporate reporting on operations.....	4
A framework for corporate reporting for national accounts.....	6
Conclusions	7
Recommendations	8
Annex 1 Closing the gap.....	9

Introduction

1. This report is the result of a seminar organized by the United Nations Statistics Division (UNSD) of the Department of Social and Economic Affairs (DESA)¹. The seminar brought together world leading experts from business, agencies, standard setters, oversight bodies, academic circles and representatives from UN Member States to explore the disconnect between economic activity and its reporting; and to find best practices and the best infrastructure arrangements through which to measure the activities that support today's unexplained contributions to economic growth.
2. At the occasion of the 60th anniversary of the United Nations Statistical Commission in 2007 the official statistics community was challenged to provide relevant information on a timely basis as the private sector is prepared to move in if the official statistics do not move up to the mark quickly. The intention of this seminar has been to take up this challenge by first, understanding the limitations of current corporate reporting for national accounts purposes and second, determining what can be done to address the lack of information to explain economic performance.
3. The United Nations Statistical Commission (UNSC), the apex entity for setting international statistical standards, adopted the System of National Accounts 1993 (1993 SNA) as the international standard for national accounts statistics. The broad objective of the SNA is to provide a framework for compiling macroeconomic data suitable for policy formation and analysis; and the analysis and evaluation of economic performance. Since the development of the 1993 SNA, economic changes that have come into prominence, aspects that have increasingly become the focus of analytical attention and the need to clarify guidance on a wide range of matters provided an impetus to update the 1993 SNA. Thus, in 2003 the UNSC requested the Intersecretariat Working Group on National Accounts (ISWGNA) to update the SNA. Subsequently, at the thirty-ninth session of the UNSC in 2008, the UNSC approved the guidelines for the updated 1993 SNA, which is now known as the 2008 SNA. The new features of the 2008 SNA draw on research, practical experience, the needs of users and, where appropriate, international standards for business and public accounting. The 2008 SNA includes updates on a variety of issues such as research and development (R&D), the cost of capital services, employee stock options, employers' pension schemes, originals and copies (how reproducible assets are used in production), financial assets classification, and others.
4. Independent of the advances in updating reporting standards, economic innovation continues apace. This leads to information gaps making it increasingly difficult for economic decision makers to explain overall economic growth with available economic data sets. Participants at the seminar were invited to explore these information gaps to build a knowledge base to bridge current and future gaps in information. Not only is collaboration and information sharing between the business community,

¹ The seminar was held from 23 to 24 June 2008 at the United Nations Head Quarters in New York

national statistical offices, academia, international organizations, and research institutions important to provide high quality information, but also to be able to provide the information in a timely fashion.

5. This report is organised as follows: The section after the introduction explores the areas where information gaps exist. The next section gives an exposition on different business models. This is followed by a corporate responsible view of corporate reporting on operations. The fifth section discusses a framework for corporate reporting for national accounts. The last two sections deal with conclusions and recommendations. A more detailed summary of the seminar proceedings is provided in an annex to the report.

Information gaps

6. The availability of data on corporate intellectual capital (often known as intangible assets) and non-financial indicators would provide valuable information to economic decision makers. Therefore, it is important that business and national accountants determine a way to compile statistics that will capture this information.

7. Human capital is arguably one of the most important assets a country possesses; however, human capital is not represented in the national accounts. Although an assessment of the role of human capital in the economy is important, the means by which to include this type of asset is not clear. Human capital presents a unique set of moral issues related to its capitalizing. Opponents of including human capital in the national accounts have raised the concern that capitalizing humans is equivalent to saying a human is like a machine with a set value. Supporters of including human capital argue that the national accounts provide a good framework to account for human capital without putting a specific value on a person (the value of an individual will remain completely separate from the national accounts). In business accounting human capital is often reported using key performance indicators (KPIs). A similar approach could be used by national accountants as a compromise by including estimates of human capital in satellite accounts that provide a link to the main accounts.

8. Some aspects of environmental accounting, such as expenditure associated with remediation, are already included in the business accounts of some countries. In the US-GAAP and the International Financial Reporting Standards (IFRS), liabilities associated with remediation, known as asset retirement obligations (AROs), are included on the balance sheet. Currently, liabilities are reported at fair value, defined as the net present value of the expense required to remediate. One of the benefits of having AROs on the balance sheet is that when a company takes clean-up action it can then erase a liability. The economic consequence of remediation is then visible. The field of environmental management is quickly evolving (cap-and-trade policies are just beginning to be used; new compounds are being identified as pollutants; etc.); business and national accountants must try to keep up. Although, the 2008 SNA provides guidance on the treatment of costs associated with the retirement of assets and transactions such as emission permits, more research is needed to fully account for transactions related to environmental management.

9. Including intangible assets and liabilities in a national accounting framework is a complex issue. As economies have shifted in certain sectors from a “brawn” to a “brain” basis, business accounting has not been able to adjust in a timely fashion to record the relevant underlying transactions that denote the sector. The participants of the meeting agreed that intangible assets should be included in the national accounts, either in the main accounts or as KPIs in satellite accounts, but recognised that the valuation of these assets is extremely difficult. The recognition of certain intangible assets is only assigned when a company change ownership. Intangible assets that are internally developed by companies; are simply not recognized. This leads to a disconnect between the market value of a company and the book value of all of its assets; particularly for companies that pursue organic growth strategies. Without including intangible assets in the accounts, it is not possible to determine the true assets of a company (or the assets of a country).

10. The sharing of information can be greatly enhanced by using common terminology across countries and industries. A consistent taxonomy of terms is an important requirement for a comparable assessment of economic activity. In addition, the use of information preparation and exchange initiatives, such as XBRL and SDMX, can be regarded as highly useful tools in understanding, collecting, sharing and analyzing information in a timely fashion.

Business models

11. Existing accounting frameworks, although robust and serving investors and their agents well for the purposes for understanding traditional manufacturing-based economic activity are insufficient for today’s national accounting reporting needs. This is because of several factors: 11. The reality of the shortcomings of accounting and corporate reporting for the collection of national accounts statistics and reporting begs the question whether anything can be done beyond what has already been done? Fortunately the answer is yes. There are solutions and if pursued and implemented, will mean that the collection of data, its interpretation and reporting can be made more relevant, timely and more complete than is the case today.

- a) Some business models, such as the value shop and value network, are today at the forefront of economic wealth creation and do not lend themselves well to traditional accounting treatments. These business models rely on intellectual capital (often intangible), which is neither capitalized nor reported in any meaningful way by companies, but nevertheless create economic wealth.
- b) Although treated properly from an accounting point-of-view, the treatment of franchises and goodwill and marketing assets remains intractable to explain systemic business performance.
- c) Information provided on balance sheets and income statements are in many cases directly linked to the circumstances of an individual company. As a result data from companies cannot be aggregated with confidence to represent the economy as whole. This is particularly evident in cases such as the recognition of intangibles only when the company changes ownership

d) Accounting treatments are always lagging. This is inevitable since accounting standards arise only after a “new” economic phenomenon has been in existence for some time and it has become clear that the existing accounting framework does not accommodate the “new” phenomenon in a satisfactory way (e.g., the recognition of employee stock options as a means of compensation of employees).

12. The information needed from individual company reporting should to be understandable, transparent, relevant, reliable and valid. To facilitate the interpretation of the data, the data also need to be comparable across companies, comprehensive in terms of the economic phenomena being presented, and consistently reported over time. These latter characteristics are fundamental to the compilation of internationally comparable national accounts.

13. With these requirements it is clear that current business accounting and reporting do not fully deliver all the data required for a full assessment of economic performance. An eclectic approach, such as that contemplated via XBRL, that permits the dismantling and reassembling the information for different purposes may contribute significantly to alleviate the problem. The architecture is able to continually evolve as standards are created or changed to accommodate previously unrecognized or undervalued areas of economic activity and to keep abreast with economic innovations and best reporting practices.

A corporate responsibility view of corporate reporting on operations

14. The value of information reported to users will vary according to the business model of the company. A trade-off is made between the benefit of the information provided to users (information users) and the cost of providing that information by companies (the preparers). The information described here particularly pertains to intellectual capital and should be seen as supplementary to what is already provided by statute and regulation.

15. Apart from the important practical issue of the competitive risks associated with providing operating information that may reveal performance secrets, it is likely that statutory financial information provided by traditional manufacturing (value chain) will provide sufficient insight into the operating model of the business. It is especially true in mature industries where strategies are known and understood, and traditional summary performance metrics are provided. This can be illustrated by the operating metrics traditionally reported to complement the financial reporting content of the retailing industry, such as the numbers of stores opened and closed (often by format), same store sales, selling space and various productivity metrics per square foot/meter.

16. The situation is arguably quite different in the case of value shop and value network business models. Statutory financial information will provide only limited insight into their operations.

17. Value shop business models leverage human capital. Consequently, information on human resources, such as their attraction and retention, capabilities and experience of various professional cohorts, nature of professional development programmes and human resource management initiatives, will significantly increase the ability to explain the performance of these types of businesses.

18. Value network business models are different again. Value networks leverage relationship capital (the communities in each side of a transaction) and organizational capital (the exchange facilitating and mediating platform). Consequently, the ability to assess the performance of these types of businesses will be significantly improved by providing information on the composition and transacting behaviours of communities on each side of the transaction (e.g., buyers/sellers, senders/receivers, originations/destinations) and the functionality and performance of the platform.

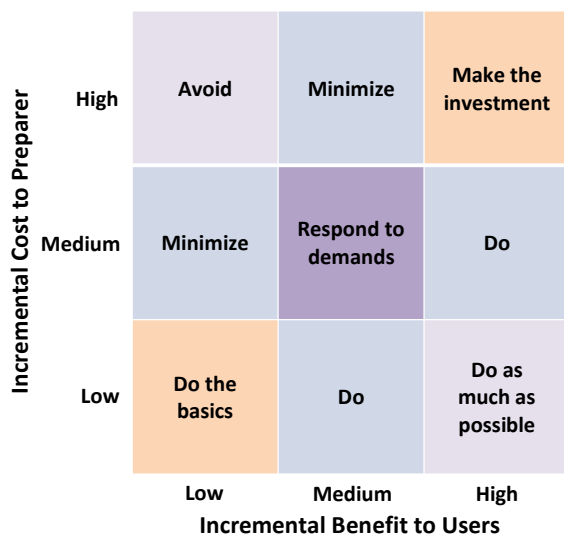
19. Value networks consist of two types - those that are asset 'heavy' and those that are asset 'lite'. From the point of view of information content available from statutory financial reporting concerning the underlying business model, asset heavy value network businesses closely approximate the more traditional value chain businesses. Asset lite value network businesses on the other hand more closely approximate value shop businesses. The financial reporting of asset lite value network businesses will reveal very little about the business model. It is unlikely to explain the performance of these types of businesses by using only statutory financial disclosure.

20. Although it is the prerogative of the board and management of a company on what additional information they are willing to disclose, it is imperative that apart from taking into consideration the relative-cost-benefit-ratio of providing the additional information, to also consider the "duty of care" that boards and management have to take into account to "fully inform" information users.

21. The incremental-cost-benefit-ratio consideration is illustrated in Figure 1. Clearly there are situations where information users will benefit greatly from the provision of additional information and that such information could be provided at little incremental cost to companies. Company boards and managements will have to assess their circumstance against the need for information. Legal concepts such as "duty of care", "standard of care" and "gross departure from the standards of duty of care" should be taken into consideration in the decision process. As corporate reporting becomes more principles based, it will be increasingly important to anchor judgment about the content and comprehensiveness of corporate reporting to a legal precept that is broadly understood (as distinct from a compliance based view tied to accounting standards and regulatory requirements only). The concept of duty of care can provide the legal basis for corporate reporting on operations since boards and management will have to consider the "reporting gap" they have (if any) and determine the responsibility they have (if any) for closing the gap.

22. The corporate responsibility view for providing comprehensive, complete and consistent information when reporting corporate information to users then leads to a requirement for a framework that will provide enough flexibility to provide the appropriate information.

Figure 1: Benefit/cost evaluation of additional operational information disclosure



A framework for corporate reporting for national accounts

23. A framework that could provide such comprehensive, complete and consistent information has been provided by the Enhanced Business Reporting Consortium (EBRC) and now also by the World Intellectual Capital Initiative (WICI). In addition, the development of the XBRL reporting initiative makes it practically possible to provide the information suitable for the EBRC/WICI framework in a highly reusable taxonomy that can be easily implemented by companies and their stakeholders. According to the framework companies should participate voluntarily, taking account of the duty of care considerations outlined above. However, when they elect to participate they should provide information by using standard information content and standardized metrics to facilitate comparability (and aggregation) across companies. If a company decides not to participate it should still provide reasons for not doing so in order to comply with the obligation of the duty of care principle. The essence of the EBRC/WICI framework is shown in Figure 2.

24. National accounts statisticians can contribute to the development of the framework by identifying, defining and quantifying the resource, asset, process, activity, and performance measures needed to assess macro economic performance.

Figure 2: EBRC/WICI framework for operational reporting

Enhanced Business Reporting Framework ^{1, 2}			
Business Landscape	Strategy	Resources and Processes	Performance
Business Landscape Summary	Corporate Strategy Summary	Resources and Processes Summary	Performance Summary
Economic	Vision & Mission	Resource Form	GAAP-Based
Industry Analysis	Strengths	- Monetary Capital	GAAP-Derived
Technological Trends	Weaknesses	- Physical Capital	Industry-Based
Political	Opportunities	- Relationship (Social) Capital	Company-Specific
Legal	Threats	- Organizational (Structural) Capital	Capital Market-Based
Environmental	Goals & Objectives	- Human Capital	
Social	Corporate Strategy	Key Processes	
	Business Unit Strategy	- Develop Vision & Strategy	
	Business Portfolio	- Manage Internal Resources	
		- Manage Products & Services	
		- Manage External Relationships	
		- Manage Governance and Risks	

Note 1. Version 2.1

Note 2. An XBRL taxonomy has been developed for the EBR Framework

Conclusions

25. This report contributes to the debate and research to close the gaps in available economic data sets by providing some understanding of “hard to explain” economic transactions and phenomena, the need for high quality and timely information and appropriate tools to assess such information. Existing information sets were reviewed and the deficiencies identified that need to be improved and adjusted to better satisfy the requirements of informed policy and decision making.

26. It is clear that even the best business reporting practices will not fully meet the requirements for the compilation of a comprehensive set of national accounts that are able to fully explain a country’s economic performance. Four issues are of particular concern:

- a) Information is partial from a system-wide point-of-view – it does not meet the requirements to describe an economy-wide phenomenon.
- b) Information is incompatible – data cannot be aggregated across all companies to describe economy-wide phenomena.
- c) Information is lagging – financial reporting standards are substantially reactive to record new forms of economic activity.

d) Information is missing altogether – economic phenomena are not reported at all.

27. National accounts guidelines are highly depended on information provided by businesses according to business accounting standards. Concomitantly with the reactive updating of business accounting standards, the process of updating the SNA guideline is also to reactive, resulting in difficulty to explain overall economic performance. There is therefore a need to update the SNA on a more continuous basis and to explore the possibility to using KPIs indicators to account for economic variables not currently included in the business accounts. When setting up international compilation guidelines the wide disparity in the ability of countries to implement these guidelines should be taken into account. A balance needs to be found between economic reality and the ability to account for economic development.

28. It is clear that standard setters need to be proactive to ensure that business and macro economic reporting fully reflect underlying economic activity to enable a comprehensive assessment of economic performance. It can do this in a number of ways which are the subject of the recommendations made below.

Recommendations

29. The recommendations are focused on the process of updating international statistical standards to address the issues that are germane to it in a timely manner.

30. Firstly, to expand on the process that has been used in the updating of the 1993 SNA by including a closer collaboration with the relevant industry professional groups. These industry groups should be engaged in discussions on the relevant topics to provide a sound understanding of the topic, which could lead to proposals for updating the SNA guidelines that reflect current macro economic reality. Secondly, in the continuous updating of the SNA, national accountants should be in constant communication with the major regulatory, agencies and accounting standard setting bodies (in particular, the IASB and IPSASB) and should constantly reappraise the priority for updating in the light of SNA needs. Thirdly, the national accountants should support enhanced business reporting initiatives as appropriate (potentially on collaborative basis to regulators and standard setters), evaluate the proposals on foot for their usefulness and/or compatibility with SNA needs and make recommendations for changes and addendums to reporting proposals. Fourthly, national accountants should make their issues known to the relevant accounting standard setting bodies so that their issues and views can be considered and as practical, incorporated in the development of standards.

31. An approach based on a model of dynamic stakeholder-based consultation (including corporate industry-based consultation) is a key change to existing SNA updating procedures.

32. These recommendations represent a proactive approach rather than a reactive one and permit a rolling update of the SNA both in terms of issue resolution and implementation.

Annex 1. Closing the gap

Summary of the seminar on Addressing Information Gaps between Business and Macro-Economic Accounts to Better Explain Macro-Economic Performance

Prepared by Dr. Roland Burgman

Introduction^{1,2}

The United Nations Statistical Commission (UNSC), the apex entity for setting international statistical standards, adopted the System of National Accounts 1993 as the international standard for national accounts statistics in 1993. The broad objective of the SNA is to provide a framework for compiling macroeconomic aggregates suitable for policy formulation and analysis; and the analysis and evaluation of economic performance.

Economic change necessitates regular updates of this reporting framework. The Statistical Commission, at its thirty-ninth session in 2008, approved the latest updated guidelines for the SNA. As in the past, the new features of the updated SNA draw on research, practical experience, the needs of users and, where appropriate, international standards for business and public accounting. But time stands still for no one. Economic innovation continues. This in turn leads to the information gaps that make it increasingly difficult for economic decision makers to explain overall economic growth with available economic data sets. The dynamic disconnect between economic activity and reporting needs to be continuously explored to identify best reporting practice and the enabling infrastructure requirements to measure the activities that support the unexplained contribution to economic growth.

This Annex summarizes the content of presentations made at the seminar providing:

1. An overview of the System of National Accounts and its future requirements
2. An examination of the status of corporate reporting and the usefulness of information relating to intellectual capital with points-of-view representing the United States Securities & Exchange Commission and well as those of the World Intellectual Capital Initiative and leading investment banks and companies
3. An examination of several topics that have been somewhat intractable for national statisticians including environmental accounting, insurance, franchising and public sector R&D
4. A review of the status of information organizing technologies, specifically, XBRL and SDMX

¹ It should be noted that this Annex does not follow the order in which the presentations were made.

² The presentation papers are available from the United Nation's web site at <http://unstats.un.org/unsd/nationalaccount/ig02.asp>.

Seminar Insights Relevant to “Closing the Gap”

This section presents the highlights of the seminar by working from an overview to headline issues to specific topics and finally, to how the information that matters is to be captured and made available.

“Developments in the Update of International Standards for Macro-Economic Accounts”

Peter Harper

Deputy Australian Statistician, Australian Bureau of Statistics

National accounts are at the core of information requirements for national, and global macroeconomic policy. The international standard for national accounts is the System of National Accounts (SNA). The most recent comprehensive revision of SNA was released in 1993³.

Since the time of the last SNA revision the world has changed fundamentally; and it continues to change. With the so-called ‘new economy’, there has been an increased growth in productivity associated with technological developments, and an increase in the importance of services, increases in financial innovation, an increased focus on the long-term fiscal sustainability of governments and the phenomena of globalization. Of course, the 1993 SNA has been periodically updated, but an incremental approach to updating has failed to keep pace with economic developments. As an interim measure, the UNSC in 2003 endorsed an update to be completed in 2008. The completed update coincides with an update of the IMF’s Balance of Payments Manual. For the purpose of this report, it is important to note that the 2008 update addressed 44 main update issues rather than through a comprehensive review process.

There were six essential steps to the 2008 SNA update process:

1. Identification of update issues
2. In-depth investigation of 44 issues
 - o Relevant policy experts involved
3. AEG consideration of conclusions
 - o AEG members consulted with policy analysts
4. UN member country consultation on AEG provisional recommendations
 - o Further consultation with policy analysts
5. UNSC consideration of AEG recommendations
6. Finalisation of 2008 SNA
 - o Volumes 1 and 2

Compromise was required in a number of cases when the requirements of a contemporary SNA were considered. As an ideal, international standard, the SNA should be able to serve the needs of all

³ The process for updating commenced in early 1980s and changes had generally been agreed upon by 1990.

countries equally. However, not all countries are equal in terms of their capabilities. In particular, it can be assumed that sound source data may not be available and the capabilities and capacities of country statistical agencies will vary. In addition, country national accounts are used for purposes other than policy purposes; different analysts have different needs.

The update included issues connected to research and development (R&D) and the role of knowledge capital; the cost of capital services and the integration of wealth and productivity accounting; employee stock options and the determination of enterprise profitability and wage costs; employers' pension schemes and the long term sustainability of government finances; and finally, financial assets classification relevant to the needs of policy analysts, particularly those at Central Banks.

Notwithstanding, unresolved issues remain. These include issues associated with capital services, human capital, the economy and the environment.

The implications for national statisticians are clear:

1. The process of updating the SNA based on SNA "releases" cannot continue. The process needs to be a more continuous one and seen and accepted as such. The rapidity of economic change makes this inevitable if national accounts are to remain relevant as a policy and decision-making input.
2. Issues pertaining to economic activity will surface that will need to be dealt with quickly based on the idea of "risk assessment". Because of the rate of economic change entirely new issues will come to the fore, or where issues have been previously dealt with, because issues will have changed in terms of their structure and/or implications. National accounts need to reflect the whole of the economies they represent in current terms; not part of the economies they represent in historical terms.
3. The recognition that economies, society and environment are becoming increasingly more interconnected will mean that global and regional policy-making will become ever more the norm. And to support meaningful policy and decision-making at the supra national level will mean that relevant issues will have to be addressed based on common language, with common understandings drawn from common data.

“Financial Reporting of Public Companies in the U.S.”

Robert C. Pozen
Chairman, MFS Investment Management
Chairman, SEC Advisory Committee on Improvements to Financial Reporting

From a company reporting point-of view, in the United States there are an array of financial reports required by the US Securities and Exchange Commission (SEC). Foremost amongst these are annual Form 10Ks and quarterly Form 10Qs and annual proxy statements. The requirements for the US GAAP are delegated by SEC to Financial Accounting Standards Board (FASB), subject to veto by the SEC. In addition to the form of the financial reports themselves, certain textual disclosures are mandated by the SEC (such as the Management Discussion and Analysis, or MD&A, contained in the Form 10K reports).

From a reporting point-of-view, public company information can be regarded to be as forthright and reliable as it can be. The progenitor of this current reality has been the Sarbanes-Oxley Act of 2002, which requires that public company CEOs and CFOs attest to the veracity of the accounts they are presenting. One of the significant consequences of false attestation is potential criminal penalties as well as civil liabilities.

Publicly traded companies are required to file reports with the SEC (after review and potentially audit by an external auditor). Reports are reviewed, but not approved, by the SEC. The responsibility for the content, accuracy and veracity of the reports remains with the filing entity. With the impending delivery of reported information by companies using eXtensible Business Reporting Language (XBRL), more companies will likely furnish the XBRL version of the SEC filing. The SEC is looking into requiring companies to file using XBRL in the future. In addition, it has been suggested that executive summaries be included at the front of Form 10K and fund prospects. Finally, in terms of contemporary progress in the delivery of information to information users, it is clear that there is an increasing use of company web sites to disseminate information and to provide hyperlinks to detailed filings with the SEC in particular. In this regard, there have been calls for legal clarification as to what can be relied upon in the discharge of a company’s responsibilities as these relate to the disclosure of information on its website.

One new aspect of the provision of meaningful and timely information being considered by the SEC is the use of key performance indicators (KPIs). Although at a conceptual stage, it is clear that it would be beneficial if the reporting of KPIs adhered to certain common characteristics (currently KPIs in any form can be voluntarily included in SEC reports). These characteristics are consistency and comparability. In this regard, the SEC is looking toward the increasing use of KPIs in earnings releases, as well as their voluntary disclosure in SEC reports (e.g., in the MD & A of Form 10K reports).

What is changing within the US is a gradual movement from rules-based to principles-based reporting. Accordingly, there will be an increasing emphasis on judgment over what is reported on, under what circumstances, often using fair value estimates. This should require a disciplined consideration of factors like:

- Material facts of the transaction
- Alternative accounting views
- Review of relevant literature
- Known diversity of practice
- Documented rationale for treatment alternative chosen

Of course, a fair value assessment will require a consideration of multiple factors. Under current rules for financial instruments these will include the time held to maturity, whether the instrument is available for sale and whether the instrument is actively traded. There may be sharp fluctuations in value caused by unrealized gains and losses, with potential capital implications. Fair value accounting has its critics and can cause counter-intuitive results to occur – so it is no panacea.

In addition, there is the issue of financial restatements and their “dark period” implications – the period during the restatement process (e.g., 1 to 2 years) during which investors receive little information. An SEC Advisory Committee has proposed the idea of distinguishing between corrections and restatements, where all errors, other than clearly insignificant errors, should be promptly corrected and disclosed in the current period (the corrections), while prior period financial statements should be restated only if the error is material to current investors (the restatements).

Another concept being given consideration is the division of the income statement into its cash flow and notional parts. Such a division would result in a net operating income figure, as distinct from the sale of securities and any unrealized income (e.g., from holding a securities trading portfolio, from currency fluctuations and from unfunded pension liabilities). Such a division would give investors a clearer view of the company’s operations and its “core” profitability.

Another contentious area being reviewed is the use of “bright lines” in leasing which, under current rules, cause a lease to be recognized – as all or nothing - depending on whether it meets the 90% test (where an alternative approach might consider a proportionate recognition). Similarly, the regulators are reviewing the off balance sheet rules which currently apply to consolidation (where the voting control and risk/reward test can be easily finessed to avoid consolidation). An alternative approach might consider whether an independent holder of substantial equity has an important governance role, and might require disclosures by the sponsor as to its informal and formal obligations and the likelihood of future consolidation.

The SEC consults with the FASB on the priorities for its standard setting program. In the process of standard setting the FASB takes several steps:

- Conducts field tests and user pre-reviews;
- Proposes a standard for public comment;
- Conducts a cost-benefit analysis of the proposal;
- Adopts the standard

After the FASB introduces a standard, it is subject to interpretation: FASB on broad industry issues and the SEC on registrant-specific issues. FASB is completing the codification of all standards and authoritative interpretations of US GAPP in one document.

To add to the complexities described above, the SEC and FASB are committed to the global convergence of accounting standards and corporate reporting. The SEC is considering several paths to effect this. These include establishing a target date for convergence including an option-in for large US companies before the target date is reached. Two things need to occur for convergence to be effected. Firstly, the global governance process will need to be restructured (including the role of oversight foundation and the roles of national regulators). Secondly, remaining accounting differences will have to be reconciled. It is anticipated that the merger of FASB and the International Accounting Standards Board (IASB) will take several years to complete.

In sum, the US corporate financial reporting system is seen to be strong. Procedural issues are being resolved and historic cost versus fair value accounting issues are being worked through. Finally, there is (slow) progress toward global convergence.

The conclusion from a national accounts preparation point-of-view is that corporate reporting, while robust, is today unlikely to deliver a comprehensive overview of economic activity for the private sector. It will not do this because corporate reporting addresses financial performance and certain other issues, which do not necessarily encompass all the value creating activities (and therefore economic transactions) that create economic wealth. In addition, it is clear that not all economic transactions and valuations are being treated similarly across economic and accounting jurisdictions. This latter point is illustrated more fully with the next presentations.

“Providing Better Information to Capital Markets to Improve Valuation Decisions”

Professor Stefano Zambon

Professor of Accounting and Economics, University of Ferrara

Founding Member, World Intellectual Capital Initiative

Robert (Bob) Laux

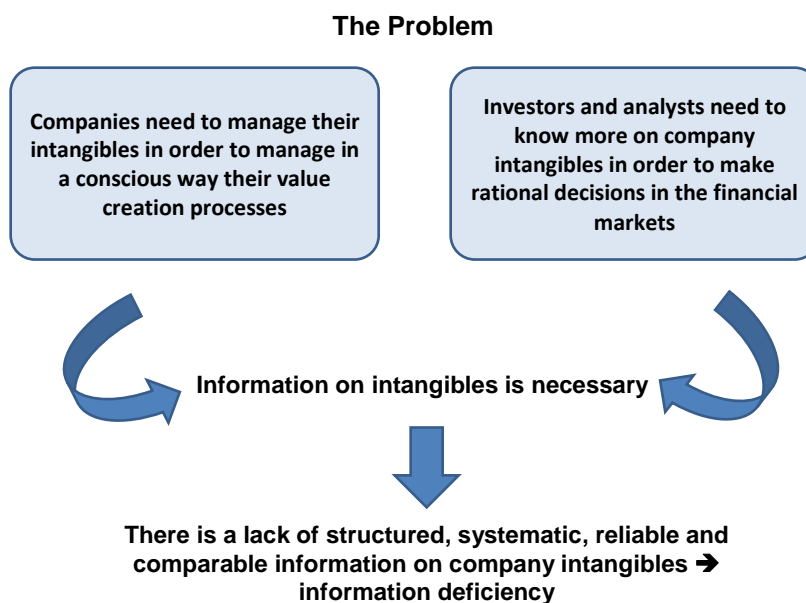
Director, Technical Accounting and Reporting, Microsoft Corporation

The Honorable Dr. Cynthia Glassman

Under Secretary of Commerce for Economic Affairs, United States Department of Commerce

Economic statistics are ultimately based on concepts of stocks and flows. The current problem for national account preparation is that increasingly, stocks and flows that are important to the generation of economic activity are neither recognized, nor disclosed. In general terms these stocks and flows are associated with what are identified as intellectual capital resources or assets, many of which are intangible in nature. The problem is defined by Zambon in Figure 1. The consequences which result are first, that economic activity is underrepresented and second, that resource allocations are less efficient than they could be.

Figure 1: The Problem of Information Deficiency for Information Users



The problem for investors in disassembling statutory financial reports is that accounting treatments today are parsimonious with what might be described as “the truth of intangibles”:

- Value recognition is only linked to transactions
- Stress is on reliability rather than on relevance
- No/poor information on long term growth drivers
- No recognition of internally generated intangibles (leading to poor and/or volatile enterprise valuation estimates)
- Intangibles and goodwill emerge only in business combinations
- Anchorage essentially to financial data with virtually no recognition of risk

Unfortunately, other reporting documents by companies such as corporate social responsibility (CSR) reports, sustainability reports (or triple bottom line, or 3BL reports), corporate governance reports and environmental reports, do not fill the information gap. These reports do provide a plethora of information, but it is not organized in such a way to become relevant to investors' and intermediaries' decision making.

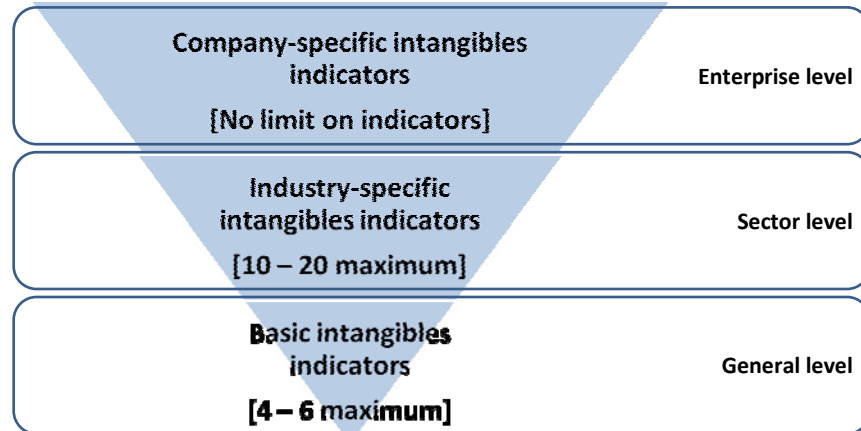
And the situation is unlikely to get better in the short term.

During December 2007, the IASB decided not to further pursue its project aimed at including certain intangibles measures on the face of the balance sheet although it is now moving along the direction of studying the possibility of disclosing information on intangibles in the notes of company annual reports. Similarly, a project on intangibles to be conducted by the FASB was dropped some years ago. The conclusion is that dealing with intangibles does not seem to be a priority in the accountancy world at the moment, even though their relevance to wealth creation and enterprise value determination is unanimously recognized.

An outcome of the frustration being felt by information users and the accounting profession itself (as distinct from the standard setters) has been to push toward the creation of a new reporting tool. In Europe, Japan and elsewhere Intellectual Capital (IC) Statements or reports on intellectual capital are being promoted. Intellectual capital includes Relationship Capital, Organizational Capital (including Innovation Capital), and Human Capital. These are visualized and measured as stocks (assets) or flows (activities) through lead indicators and parameters (KPIs), and are accompanied by a narrative that links these data with company strategy. It will be clear that many intellectual capital assets will be intangible and that many will not be captured through conventional financial accounting rules.

What is being proposed as a complement to conventional financial accounting reporting narrative can be illustrated via an inverted pyramid approach to reporting on relevant KPIs. The inverted pyramid approach proposes that KPIs should be articulated at three levels – general, industry, company specific. The general concept is shown in Figure 2.

Figure 2: The Inverted Pyramid of Intellectual Capital Reporting



What is at the stake here is the rethinking of the information set available to management, investors, and intermediaries. The situation is perceived as being problematic in many countries and by many institutions and associations, including the United Nations as well as the OECD, the European Commission, World Bank, WIPO and national governments. Currently, there is an array of relevant and interesting initiatives being pursued globally and there are a number of “guidelines” now in existence on intellectual capital reporting:

- International Federation of Accountants (IFAC) – Study no. 7 (1998)
- Danish Agency for Trade and Industry (DATI) Guidelines (2000; latest edition 2003)
- Nordika Project Guidelines (2001)
- MERITUM Project Guidelines (2002)
- German Ministry of Labour (2004)
- Japanese Ministry of Economy (METI) (2005)
- Australian IC Guidelines (2002 e 2005)
- Putting IC into Practice Guidelines (PIP) by Nordic countries (2006)

Worldwide, there are basically three approaches to the representation of intellectual capital:

- The Enhanced Business Reporting Collaborative (EBRC) framework in the US
- The Intellectual Capital Statements framework in Europe
- The Intellectual Assets-Based Management (IAbM) framework in Japan

Unfortunately, there is the risk of lack of reconciliation between these frameworks, and thus the possibility of establishing a globally recognizable complementary information generation platform could be lost or derailed.

On the positive side though, it is possible to identify numerous aspects of convergence in these approaches. There is indeed a similar focus on intellectual capital assets (intangibles), long-term

sustainability, mapping of the value creation drivers, the need for KPIs and for the grouping of information.

A recent initiative arising from the work of the ERBC has been the formation of the World Intellectual Capital Initiative (WICI). This organization is currently comprised of the following members:

- OECD
- European Federation of Financial Analysts Societies (EFFAS) Commission on Intellectual Capital
- Enhanced Business Reporting Consortium (AICPA plus others)
- Japanese Government – Ministry of Economy (METI)
- Society for the Knowledge Economy in Australia (SKE)
- European Commission (observer)
- Waseda University of Tokyo
- University of Ferrara

The main purposes of the WICI Network are to promote:

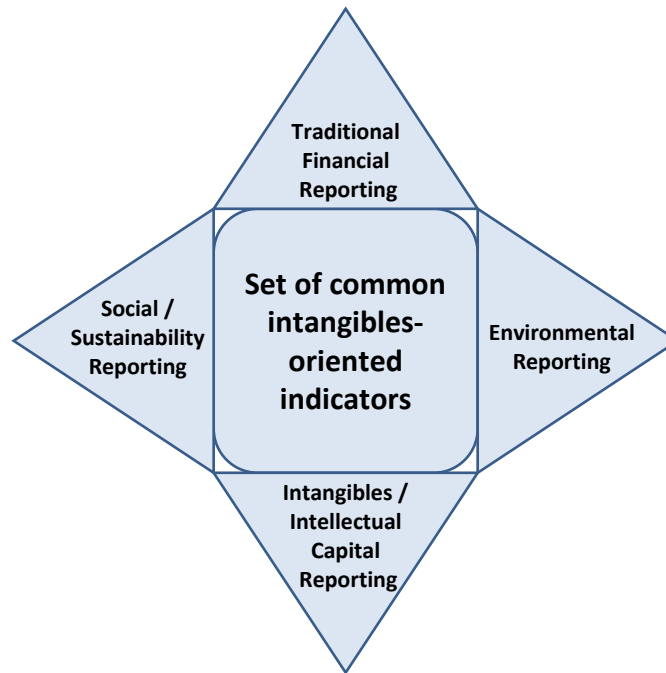
- the management and reporting of intellectual capital/assets at the company level throughout the world through cooperation amongst members, and, where appropriate, in collaboration with any other national and international organisation as well as through the proposal of specific concepts, models, frameworks, taxonomies, and so on
- international dialogue on the management and reporting of intellectual capital/assets with other organisations and interested parties such as investors, companies and their representative bodies, policy makers, regulatory authorities, stock exchanges, standard setters.

WICI's activities are concentrated on the "next steps" in developing a practical and globally implementable complementary IC reporting addendum to traditional financial reporting. These steps are to:

1. Develop a framework on management and reporting of business
2. Create a set of KPIs commonly and universally used by each company, and another for each industry group
3. Establish a taxonomy to disclose business strategy and related intellectual assets/capital as non-financial information
4. Study and stock-take examples on actual IC based management and its disclosure
5. Study and stock take on how to guarantee the reliability of the new business reporting
6. Establish a cooperative relationship with the domestic and international organizations concerned in standard setting and regulation, as well as to exchange information with them

The meta-intention is to create an integration of current reporting, shown in Figure 3, where a set of common metrics will reflect the essence of more establish reports – including traditional financial reports, corporate social responsibility reports, sustainability (3BL) reports and environmental reports (as well as industry specific reports).

Figure 3: Reporting on Key Common Performance Metrics



WICI has in broad terms accepted the high-level reporting framework developed by the EBRC which includes:

- Relevant contextual factors (business landscape, strategy, and resources and processes)
- A broader definition of performance including:
 - GAAP/IFRS-based financial performance
 - Key Performance Indicators (KPIs)
 - Other relevant performance measures

The EBRC framework is shown in Figure 4.

Figure 4: EBR Framework Version 2.1

Enhanced Business Reporting Framework ^{1, 2}			
Business Landscape	Strategy	Resources and Processes	Performance
Business Landscape Summary	Corporate Strategy Summary	Resources and Processes Summary	Performance Summary
Economic	Vision & Mission	Resource Form	GAAP-Based
Industry Analysis	Strengths	- Monetary Capital	GAAP-Derived
Technological Trends	Weaknesses	- Physical Capital	Industry-Based
Political	Opportunities	- Relationship (Social) Capital	Company-Specific
Legal	Threats	- Organizational (Structural) Capital	Capital Market-Based
Environmental	Goals & Objectives	- Human Capital	
Social	Corporate Strategy	Key Processes	
	Business Unit Strategy	- Develop Vision & Strategy	
	Business Portfolio	- Manage Internal Resources	
		- Manage Products & Services	
		- Manage External Relationships	
		- Manage Governance and Risks	

Note 1. Version 2.1

Note 2. An XBRL taxonomy has been developed for the EBR Framework

In terms of the second step identified by WICI, the EBRC, together with Gartner, Inc., have introduced an initiative to establish relevant KPIs through a market-driven collaboration to establish industry standards for KPIs, led by business executives, financial analysts and investors. The objective of this initiative is to identify KPIs that are leading indicators of business performance for three of the following industry sectors –insurance, financial services, pharmaceutical, technology and retail/consumer.

The recommendations to the current SEC committee, “SEC Advisory Committee on Improvements to Financial Reporting (CIFiR)” are as follows:

- The SEC should encourage private sector initiatives targeted at best practice development of company use of Key Performance Indicators (KPIs) in their business reports through
 - Encouraging private sector dialogue – involving preparers, investors, and other interested industry participants, such as consortia that have long supported KPI-like concepts
 - Fostering the reporting of understandable, consistent, relevant and comparable KPIs on relevant activity and industry-specific bases
- Acknowledge the useful work of those consortia that endeavour to go beyond the limited scope of CIFiR’s recommendations to provide an overall structure which provide a linking of financial information and KPI indicators into a seamless whole

“Financial and Non-Financial Reporting on Intangibles and Intellectual Capital Assets in Company Reports”

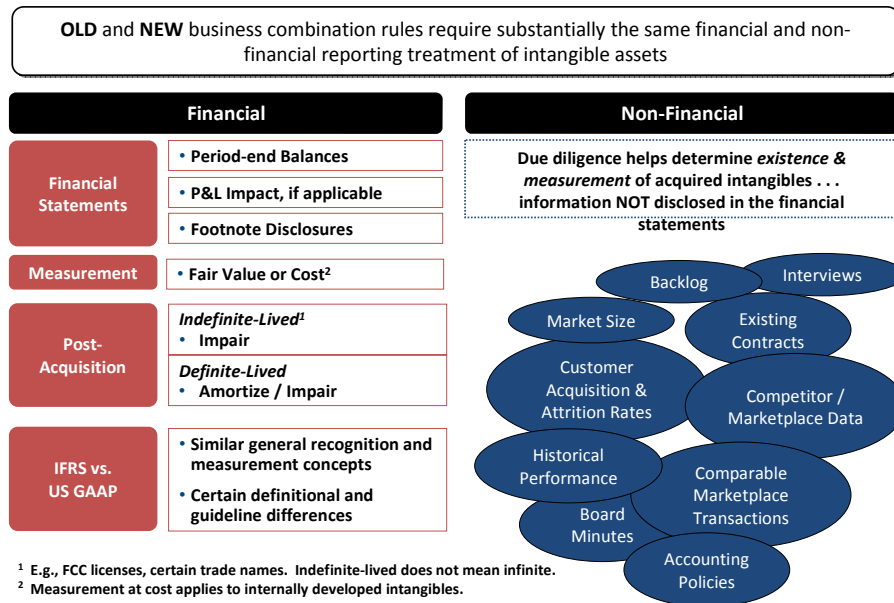
Lance Robinson
Global Controller, Mergers & Acquisitions, General Electric

John Ballow
Principal, AssetEconomics

Marc Lucier
Director, Deutsch Bank
Chairman, Intellectual Assets Market Committee, Intangible Asset Finance Society

The reporting gap issues outlined above are made clear when corporate mergers and acquisition are considered. What investors are looking for and what is recorded tend to be quite divergent. Today’s business combination rules for acquisitions are similar to those in the past. This is shown in Figure 5.

Figure 5: What Investors See and the Role of Due Diligence



The implication of Figure 5 is that enterprise value determination is arrived at with the due diligence process augmenting financial statement analysis by addressing the value creating potential of intellectual capital (intangibles). For the moment using the term intellectual capital interchangeably with that of intangibles, the nature of intangibles and their recognition criteria are shown in Figure 6.

Figure 6: Sources of Intangibles

	Visible		Invisible (Generally)
	Business Combinations	Asset Acquisitions	Internally Developed
Goodwill		NO	NO
Other Intangibles	<ul style="list-style-type: none"> Marketing-related Customer-related Artistic-related Contract-based Technology-based Indemnification assets Pre-acquisition contingent assets 	<ul style="list-style-type: none"> Marketing-related Customer-related Artistic-related Contract-based Technology-based 	<ul style="list-style-type: none"> Computer software In-process research & development
Recognition Criteria	<p>Other Intangibles arise:</p> <ul style="list-style-type: none"> From contractual or other legal rights, OR By meeting separability criterion 	<p>Must meet asset recognition criteria:</p> <ol style="list-style-type: none"> Is an “asset” by definition Reliably measured Relevant – information about it makes a difference to users Reliable – information is representationally faithful, verifiable and neutral <p><i>An intangible asset that meets the contractual-legal or separability criterion in a business combination would also presumably meet the asset recognition criteria, but the reverse is not necessarily always true (e.g., specially trained</i></p>	<p>Generally expense as incurred unless a specific pronouncement calls for capitalization.</p> <p><i>US GAAP: Costs of internally developing, maintaining, or restoring intangible assets (including goodwill) that are not specifically identifiable, that have indeterminate lives, or that are inherent in a continuing business and related to the entity as a whole ... are expensed</i></p> <p><i>IFRS: Item must meet the definition of an intangible asset, possess the two general criteria of intangible assets, and be related to the development phase of an internal project meeting certain feasibility criteria</i></p>

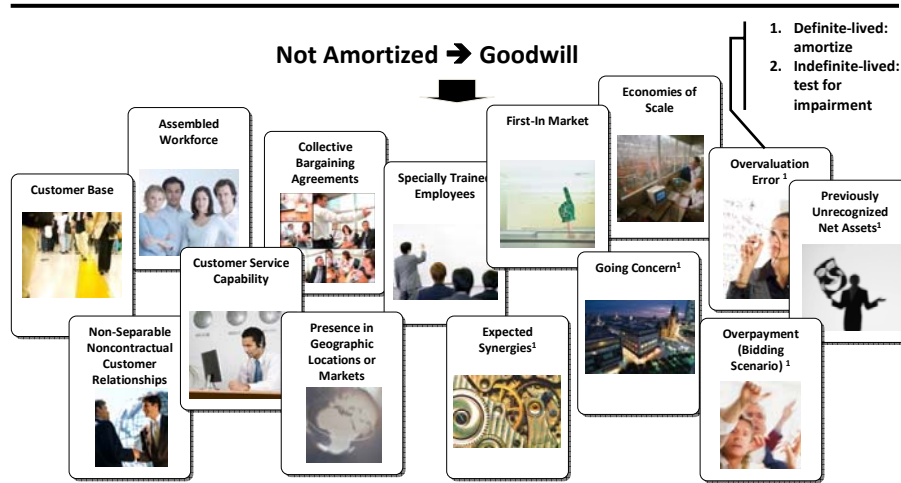
Note 1. Similar criteria exist under IAS

Any acquisition that involves a premium over book value will require a consideration of the allocation of the premium to intangibles with the residual (premium value less intangibles value) to be allocated to goodwill⁴. The variety of possible allocations is shown in Figure 7.

4 It is worth noting that indefinite life intangibles and goodwill are not amortized. Accordingly, many companies have chosen to maximize the premium on acquisition to these categories since there is no consequential amortization charge to then flow through to the income statement; thus maximizing earnings per share (EPS).

Figure 7: The Components of Goodwill

Goodwill = Purchase Price of Target - Fair Value of Identifiable Net Assets



Note 1. Components of Goodwill per SFAS 141.

The types of intangible assets that may be recognized on acquisition in the US are shown in Figure 8.

Figure 8: Types of Intangible Assets Recognizable on Consolidation in the US

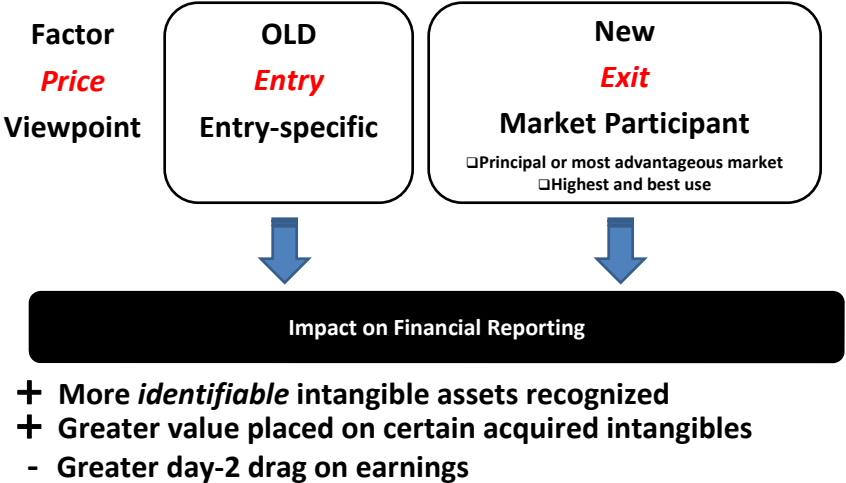
By Classification ... (select)	By Industry ... (select)
Marketing-Related - Trademarks, trade names - Internet domain names - Non-compete Agreements	Insurance <ul style="list-style-type: none"> Customer relationships Distribution channels Brands and trademarks Process technology and know-how
Customer-Related - Customer lists - Customer contracts - Non-contractual customer relationships	Investment Management <ul style="list-style-type: none"> Trade names Customer relationships Fund manager contracts
Artistic-Related - Books, magazines, other literary work - Musical works (e.g., song lyrics, compositions) - Non-contractual customer relationships	Technology <ul style="list-style-type: none"> Trade names Favorable / unfavorable contract terms Patents Computer software Internet domain names IP, R&D
Contract-Based - Licensing, royalty, standstill agreements - Lease agreements - Use rights - Servicing contracts (mortgage servicing)	Banking <ul style="list-style-type: none"> Core deposit intangibles Distribution channels Brands and trade names Customer relationships Customer lists
Technology-Based - Patented technology - Computer software and mask works - Databases - Trade secrets - Research and development	

This is the situation today. However, there are forthcoming changes on foot which reflect a fair value accounting philosophy. The new definition of fair value incorporates significant changes such that fair value now requires a principal market or most advantageous market valuation (highest and best use) rather than the previous entry or entity-specific valuation. Under FAS157, the fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. It is the price received from selling an asset or transferring a

liability (the exit price) in a hypothetical transaction and NOT the price paid to acquire an asset or assume a liability (the entry price) in an actual transaction. These differences are shown in Figure 9.

Figure 9: Forthcoming Changes to the Definition of Fair Value Under FAS157

The new definition of “Fair Value” has significant implications on the recognition and measurement of intangible assets



Note 1. Under US GAAP, diversity existed amongst Standards with respect to the definition of “transaction price”

The issue of acquisition purchase price allocations remains a difficult one. For acquisitions where there is a significant premium over book generated, it is also likely that there will be large amount of goodwill, simply because definite life and indefinite life intangibles can absorb only so much of the premium. This in turn is because recognized intangibles are part of the intellectual capital assets being purchased. This is not to say, however, that if all possible intangibles were identified that they would absorb all of the remaining premium. This is because the difference between the premium and the allocation to intangibles which is categorized as goodwill represents something else altogether – the present value of acquired future free cash flows arising from the acquisition – representing the existing free cash flows of the acquired business and incremental free cash flows arising from the joining of the enterprises (often called synergies).

The other side of the coin of the absence of indefinite life intangible and goodwill amortization is impairment testing. This issue has not been dealt with by companies to any great degree thus far. The global economic climate of 2008 (and perhaps beyond) will necessitate that company Boards seriously consider the values they have ascribed to intangibles and to their expectations for future cash flows embedded in goodwill. Of considerable importance going forward will be company disclosures on the adequacy, methods and assumptions used in impairment testing including, especially, the allocation of goodwill to reporting units. If impairment testing is to be applied consistently, then methodological

choices need to be narrowed and any changes in the impairment methodology applied need to be explained⁵.

The importance of intellectual capital assets in enterprise valuation is illustrated by the decreasing proportion of enterprise value explained by accounting book value, shown in Figure 10. The percent of enterprise value explained by accounting book value declined from 80 percent in 1980 to about 20 per cent in 2005. Despite the rises and falls of the market over time, the percentage trend is clear – accounting book value is explaining less and less of enterprise value.

Figure 10: Accounting Book Value as a Percent of Enterprise Value, 1980 to 2008

Dates	S&P Index	S&P P/E Multiple (End of Quarter) ¹	S&P 500 Market Value of Equity (\$ million)	S&P 500 Book Value (\$ million)	Goodwill	Net Book Value (Shareholders Funds less Goodwill)	S&P Net Book Value as Percent of Market Value	Residual as Percent of Market Value
1980, Dec. 31	135.76	9.16	\$908,228	\$722,704	\$0	\$722,704	79.6%	20.4%
1985, Dec. 31	211.28	14.46	\$1,474,435	\$929,375	\$0	\$929,375	63.0%	37.0%
1990, Dec. 31	330.22	15.47	\$2,198,577	\$1,205,360	\$0	\$1,205,360	54.8%	45.2%
1995, Dec. 29	615.91	18.14	\$4,560,503	\$1,585,011	\$0	\$1,585,011	34.8%	65.4%
Peak – 2000, Mar. 24	1527.46	29.41	\$12,130,587	\$2,455,901	\$32,109	\$2,423,792	20.0%	80.0%
2000, Dec. 29	1320.28	26.41	\$11,334,318	\$2,851,747	\$76,884	\$2,774,863	24.5%	75.5%
Trough – 2002, Oct. 9	776.76	31.89	\$8,002,602	\$2,942,761	\$841,134	\$2,101,627	26.3%	74.7%
2005, Dec. 30	1248.29	17.88	\$11,472,342	\$4,208,741	\$1,328,742	\$2,879,999	25.1%	74.9%
Peak – 2007, Oct. 9	1565.15	19.84	\$13,977,436	\$4,767,491	\$1,777,654	\$2,989,837	21.4%	78.6%
2008, Jun. 30	1280.00	21.20 ³	\$11,487,665	\$4,591,581	\$1,794,277	\$2,797,304	24.3%	75.7%

Note 1: P/E for March 30, 2008 ... latest available.
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This phenomenon requires some explanation. The S&P 500 P/E multiple has ranged from a low of 6.68 at the end of 1Q 1980 to a spectacular high of 46.50 at end of 4Q 2001. The S&P 500 P/E multiple has averaged 19.31 over the period 1Q 1980 through 1Q 2008. The declining contribution of accounting book value to enterprise value is in some part explained by the change in the underlying economy. The traditional manufacturing-based economy, represented by value chains, has been augmented by two other business models, the “value shop” and the “value network”. The management focus of the “value shop” is to solve a problem or exploit an opportunity, while the management focus of the “value network” is to mediate or facilitate an exchange. These management focuses are quite different to that of the “value chain”, where the management focus is to produce a product or service. Within the context of the contemporary US economy, the “value network” business model has come to the fore as an important contributor to shareholder wealth creation.

⁵ The SEC is required to review every domestic issuer’s disclosures, including financial statements, at least every three years.

Recognizing these business models as being significantly different from the traditional value chain is an important step for this reason – enterprises that represent these less recognized business models leverage assets or resources that are not represented on a traditional balance sheet. A conventional balance sheet’s resources are shown by Figure 11. It is clear from this figure that it can be the case that if an enterprise grows organically, that there will be no recognized intellectual capital of a tangible or an intangible nature.

Figure 11: The Traditional Balance Sheet and Recognized Assets

		Resource Form				
		Traditional Economic Capital		Intellectual Capital		
		Monetary Capital	Physical Capital	Relationship Capital	Organizational Capital	Human Capital
Asset Recognizability	Tangible	<input type="checkbox"/> Cash <input type="checkbox"/> Receivables <input type="checkbox"/> Investments	<input type="checkbox"/> Inventory <input type="checkbox"/> Property, Plant & Equipment <input type="checkbox"/> Land & Buildings <input type="checkbox"/> IT Hardware			
	Intangible					

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The situation shown in Figure 11 is not universally the case of course, since certain intangibles are now recognized upon acquisition under FAS141R. The intangibles now recognized from an accounting point-of-view are shown in Figure 12 and are allocated according to the template shown as Figure 11.

Figure 12: Intangibles Recognized on Consolidation

		Resource Form				
		Traditional Economic Capital		Intellectual Capital		
		Monetary Capital	Physical Capital	Relationship Capital	Organizational Capital	Human Capital
Recognized	Tangible					
	Intangible	<p>Intangibles recognition from FAS 141R!</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Plays, operas, ballets <input type="checkbox"/> Books, magazines, newspapers, other lit. works <input type="checkbox"/> Musical works <input type="checkbox"/> Pictures, photographs, video and AV materials incl. motion pictures <p>Artistic-related IAs</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Licensing, royalty, standstill agreements <input type="checkbox"/> Advertising, construction, management, service or supply contracts <input type="checkbox"/> Lease agreements <input type="checkbox"/> Franchise agreements <input type="checkbox"/> Construction permits <input type="checkbox"/> Servicing contracts <p>Contract-based IAs</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Patented technology <input type="checkbox"/> Trade secrets (incl. formulas, processes, recipes) <input type="checkbox"/> Computer software <input type="checkbox"/> Data bases <input type="checkbox"/> Unpatented technology <p>Technology-based IAs</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Employment contracts <p>Contract-based IA</p>
	Intangible	<ul style="list-style-type: none"> <input type="checkbox"/> Use rights (drilling, water, air, timber getting, route authorities) <p>Contract-based IA</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Customer lists <input type="checkbox"/> Order backlogs <input type="checkbox"/> Customer contracts <input type="checkbox"/> Related customer relationships <p>Customer-related IAs</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Trade marks <input type="checkbox"/> Trade dress <input type="checkbox"/> Newspaper mastheads <input type="checkbox"/> Internet domain names <input type="checkbox"/> Non-competition <p>Marketing-related IAs</p>		
Intangible			& UNRECOGNIZED!			

Despite the recognition of certain intangibles on consolidation, this step forward does not assist information users too much. First and foremost, this is because self-generated intangibles are not recognized and second, because there are other intangible intellectual capital assets that companies leverage to create value. In particular, any human capital assets are omitted (“assembled workforce”). The basis of competitive advantage for each of the three business models or value logics is shown in Figure 13.

Figure 13: Key Sources of Competitive Advantage for Chains, Shops and Networks

		Chain	Shop	Network
	Monetary	Primary basis for competitive advantage		
	Physical	Primary basis for competitive advantage		Secondary basis for competitive advantage
	Relationship	Secondary basis for competitive advantage	Secondary basis for competitive advantage	Primary basis for competitive advantage
	Organizational	Secondary basis for competitive advantage	Secondary basis for competitive advantage	Primary basis for competitive advantage
	Human		Primary basis for competitive advantage	

The outcome of current rules governing the recognition of intangibles is shown in Figure 14. From an information provision point-of-view, the result is not at all useful to information users apart from understanding the allocations of acquisition premiums in total. This comment is made since many companies that do acquire do not make single acquisitions but rather are serial acquirers. The result is that for most acquiring companies, the period-on-period movement in the value of intangibles and goodwill must be applied to all of the acquisitions that have been made during the intervening period. Unfortunately, the result is that the reporting on intangibles tells information users nothing useful about the company’s stock or flows of intangibles.

Figure 14: Reporting on Company Intangibles – No Definitive Information Content

		Growth Paths	
		Organic Growth	Growth by Acquisition
Recognized	Intangible	Self-generated intangibles neither identified nor valued	Identified and valued where acquisitions occur & not identified or valued when self-generated
Unrecognized	Invisible	Neither identified or valued	Neither identified or valued

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The result is that information users find intangible assets difficult to separate out from the rest of the assets of the enterprise, difficult to value and ephemeral (what’s here today may be gone tomorrow). As a consequence, information users have no intuitive comfort with respect to intangibles as an asset class.

Investors want information that is:

- Objective
- Repeatable
- Clearly linked to the cash flows derived from those intangibles
- Comparable
 - across companies
 - across periods/time
 - across divisions within each company

As described above, information users are not getting the information they want. Reporting on intangibles is more subjective than objective since companies have the flexibility and incentive to minimize the recognition of identifiable intangibles and maximize goodwill; and where there are definite life intangible assets, to justify the long lives of intangibles to reduce amortization expense. Clearly,

without a liquid market for intangibles, valuations will inevitably be subjective. Basic questions will include what royalty rates to assume and what discount rate to apply? Clearly the lack of objectivity in determining intangible values on consolidation inevitably introduces reliance on individual judgment, which ultimately becomes problematic.

An additional problem arises from the fact that intangibles are often not clearly able to be linked to the cash flows derived from them. Intellectual capital stocks are often hard to separate in a way that relative contributions to outcomes can be identified. This is compounded by the fact that multiple intellectual capital resources are often combined to create outcomes.

Intellectual capital/intangible reporting today is incomparable across companies and time periods. Three factors have caused this result.

1. Business models have changed; what was relevant yesterday is not relevant today
2. Subjectivity has reduced comparability
3. Piece-meal approaches to accounting changes have reduced inter-temporal comparability

The conclusion is that the reporting of intangibles is incomplete and inconsistent; and therefore of limited usefulness to investors!

“Building a Sustainable Business”

Georg Kell

Executive Director, United Nations Global Compact, United Nations

The UN Global Compact is a framework for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, the environment and anti-corruption . As the world's largest, global corporate citizenship initiative, the Global Compact is first and foremost concerned with exhibiting and building the social legitimacy of business and markets.

Business, trade and investment are essential pillars for prosperity and peace. But in many areas, business is too often linked with serious dilemmas - for example, exploitative practices, corruption, income equality, and barriers that discourage innovation and entrepreneurship. Responsible business practices can in many ways build trust and social capital, contributing to broad-based development and sustainable markets.

The Global Compact is a purely voluntary initiative with two objectives:

- ✚ Mainstream the ten principles in business activities around the world
- ✚ Catalyse actions in support of broader UN goals

The Global Compact asks companies to embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labour standards, the environment, and anti-corruption⁶.

6

Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
Principle 2: make sure that they are not complicit in human rights abuses.

Labour Standards

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
Principle 4: the elimination of all forms of forced and compulsory labour;
Principle 5: the effective abolition of child labour; and
Principle 6: the elimination of discrimination in respect of employment and occupation.

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges;
Principle 8: undertake initiatives to promote greater environmental responsibility; and
Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

The 2007 Global Compact Annual Review presented the results of the “Global Compact Implementation Survey” – the Compact’s first quantitative review at the actions of business participants to implement the ten principles and advance the initiative.

In terms of principle implementation, the review showed that there were distinct areas where companies were excelling and others where they were lagging. A majority of survey respondents had number of policies in place related to human rights, labour, environment and anti-corruption. However, the review proposed that there was room for advancement in areas such as conducting human rights impact and risk assessments, applying labour standards throughout supply chains, utilizing environmental management systems, and reporting on instances of corruption. These areas are not being reported on to any great extent; this in spite of the fact that financial markets are starting to recognize that environmental, social and governance issues can be material to long term performance.

“Accounting for Environmental Management and Environmental Costs”

John McCormack
Principal, AssetEconomics, Inc.

Tarcisco Alvarez-Rivero
Division for Sustainable Development, United Nations Department of Economic and Social Affairs

Estrella V. Domingo
Assistant Secretary-General, National Statistical Coordination Board, Philippines

The history of environmental accounting (as distinct from environmental management accounting) is instructive in that it tends toward compliance reporting rather than presenting an understanding of environmental management.

Late in the 20th century, shareholder-owned companies were often aware they faced significant financial liabilities for cleaning up industrial and mining sites. Estimates by the Environmental Protection Agency (EPA) and National Brownfield Association of future costs of polluted sites ranged over several hundred billion dollars. Nevertheless, liabilities for future clean-up costs were generally not recognized on balance sheets (although FAS 5 in 1975 and FIN 39 in 1993 were tentative steps). Generally, environment related costs were expensed as they occurred (including the superfund tax assessments under CERCLA).

Thus, accounting for environmental management has mostly been a late 20th century phenomena.

Today, an estimate of the costs of future environmental liabilities must now be recognized on the balance sheet with the “fair value” (DCF) of clean-up costs being the standard⁷.

The first US accounting rules for such liabilities were designed with nuclear power plant decommissioning costs in mind but have been adapted to cover other situations. These liabilities are now generally known as “Asset Retirement Obligations” (AROs) in the US.

How the accounting treatment is effected is as follows:

- The firm records the fair value of a liability for an ARO in the period when it is incurred (typically when the asset is installed at the production location).

⁷ Sarbanes-Oxley, SEC’s Regulation S-K, FAS 143 (2002) and FIN 47 (2005) impose strict requirements and *personal* liabilities for misstatements

- The firm capitalizes the ARO cost by increasing the carrying amount of the related properties, plants and equipment (PP&E)
- Over time, the liability is increased for the change in its present value each period, and the initial capitalized cost is depreciated over the useful life of the related asset

In addition, public companies must also describe AROs and related assets and explain how the fair value was determined (the assumptions used).

The relevant accounting standard in the US is FAS143. To determine whether is a liability under FAS 143 requires determining if there is a “legally enforceable obligation” which could refer to:

- Federal law
- Local statutes
- Regulation
- Contractual obligations
- The potential for so-called *promissory estoppels* which may impose obligations even if a firm has not contracted explicitly with other parties or if no law or ordinance exists

FAS 143/FIN 47 also now requires an estimate of conditional AROs (CAROs) even if a firm expects to operate a facility indefinitely and has no plans to shut down, abandon, or decommission.

There are changes in what’s being reported:

- Higher standards are being imposed by recent rulings –particularly the more specific rules of FIN 47 – which have resulted in much more extensive figures being reported
- Size of balance sheets have increased (both assets and liabilities) but reported profits have not been as heavily impacted

A typical disclosure (from ConocoPhillips 2007 Form 10-K), shown in Figure 15, illustrates the way in which AROs are being reported on by a major resources company. It is worth noting that any changes in estimates of future costs and “accretion” will impact the income statement and (addition or decrement) will necessarily affect the declared accounting profit (loss) albeit as a non-cash item.

Figure 15: ConocoPhillips AROs for 2006 and 2007

- ❑ Higher standards imposed by recent rulings – particularly the more specific rules of FIN 47 – have resulted in much more extensive figures being reported
- ❑ Size of balance sheets have increased (both assets and liabilities) but reported profits have not been as heavily impacted
- ❑ Typical disclosure (from ConocoPhillips 2007 Form 10-K)

	Millions of Dollars	
	2007	2008
Asset retirement obligations	\$6,613	\$5,402
Accrued environmental costs	\$1,089	\$1,062
Total asset retirement obligations and accrued environmental costs	\$7,702	\$6,464
Asset retirement obligations and accrued environmental costs due	(\$441)	(\$845)
Long-term asset retirement obligations and accrued environmental	\$7,261	\$5,619

Sites that commonly have reported AROs today include the following:

- Nuclear power plant decommissioning
- Oil and gas wells (especially off-shore platforms)
- Oil refineries and chemical plants
- Non-nuclear electric power plants
- Certain manufacturing facilities such as smelters; some warehouses
- Strip mines
- Industrial accident sites (spills etc.)

These are traditional industrial situations where the both the nature of the environmental degradation and the sources of problems are relatively clear and the liabilities incurred are generally for “remediation” of the local environment.

The explication above represents the current “state of play” in accounting. The usefulness of financial accounting to “ecosystem accounting” is not altogether clear. Nonetheless, progress has been made. The costs of remediating land and water to something resembling its prior natural state will now become available (although revisions to presented data will be inevitable). Furthermore, these contributions to statistics are “bottom-up” and therefore offer much greater opportunities for analysis. On the whole, the accounting rules pertaining to environmental accounting are conceptually sound. This said; it has to be acknowledged that the “credit adjusted risk free rate” used in discounting is an unfortunate technical defect. The challenge is in applying the concept to matters where property rights, law, regulation, court decisions on legal liabilities, technical capabilities and the responsibility for outcomes is unclear or changing swiftly.

The major challenges that still exist are:

- Determining responsibility and liability for those parts of the environment that are not private property nor even part of national territories (such as oceans and the atmosphere)
- Making financial estimates while the rules of the game are subject to radical change

- The US EPA has long concluded that CO₂ was not a “pollutant” but the Supreme Court of the United States (SCOTUS) determined (by a 5 to 4 vote) otherwise in 2007
- Several so-called “Cap and Trade” proposals designed to steadily reduce carbon dioxide and other greenhouse gas emissions economy-wide in a cost-effective manner are being considered by US Congress currently
- Who gets to claim reductions and who must assume liabilities?
 - Example – United Technologies Corporation’s EcoPower jet engine cleaner (GE, Hawaiian Airlines)

Environmental management accounting (EMA), as a management approach incorporating environmental accounting, is likely to provide the platform for national statisticians to understand and incorporate the full range of environmental economic activities. EMA is broadly defined to be the identification, collection, estimation, analysis, internal reporting and use of physical flow information (i.e., materials, water, and energy flows), environmental costs, and other monetary information for both conventional and environmental decision making within an organization

With this interpretation, EMA is simply comprehensive management accounting applied to environmental issues. The focus is no longer on assessing “environmental costs” but on a revised calculation of production costs associated with material flows. Thus, EMA applies the concepts of management accounting to the production of waste rather than the identification of overheads. A production view thus encompasses the following:

- Production costs of wastes and emissions
- Material inventory losses
- Wasted materials purchase costs
- Disposal and treatment costs and reserves
- Liability and contingency costs and reserves

EMA identifies the revenue and cost streams related to material flows and thus allows for better investment decisions. Often this means that managements realize that the current materials flows of the company are too expensive and must be reduced to improve financial performance. Alternatively, managements realize that producing waste/emissions up to the level allowed by law may be too expensive for the company and that going beyond these levels may be the only financially responsible course of action.

Clearly there is a substantial philosophical difference between environmental management accounting (EMA) and environmental accounting as it is practiced today.

The promise of EMA is much more robust in terms of its implications for national accounting although it can be said that the issues that environmental accounting has grappled with and resolved are also unavoidable for the purposes of EMA. The advantage that EMA has is that it leads to the clear

identification of all of the costs of managing environmental outcomes and therefore will provide the best basis for understanding all of the economic activities that arise from environmental management.

“Accounting for Insurance”

Jeff Altman

Vice President, Metropolitan Life Insurance

Dr. J. Steven (Steve) Landefeld

Director, Bureau of Economic Analysis, United States Department of Commerce

Karen Wilson

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Director-General, System of National Accounts, Statistics Canada

Life insurance companies are in the business of providing long term guarantees. Life insurance companies are also involved in selling liabilities between companies (reinsurance). The insurance industry is also heavily regulated.

The profitability of a life insurance policy cannot really be known until a policy lapses. Output is based on net income after tax. However, net income is difficult to determine from GAAP financials or statutory statements. For statistical reporting principles, net income is defined within a year. In insurance, a fair amount of output within a year is the expense of the company (commissions to sales representatives are a huge part of this).

Within insurance there are two types of reinsurance:

1. affiliated transactions – which is when an account is transferred to an offshore affiliate of a company
2. third party transactions – which involve two unaffiliated companies. Reinsurance is defined as the transfer of risk and profit from one party to another.

Based on these definitions, output is transferred to the reinsurer; however, even though the output is transferred to an affiliate the account activity might remain within the original company. This clearly could have an impact on national account statistics and so the effects of the use of captive insurance companies (companies established with the specific objective of financing risks emanating from their parent group) should be considered.

Treating premiums as “final sales” as the sole indicator of output would cause double counting; for example, car insurance premium plus the purchases of car repair services paid for by out of proceeds from insurance claim. If auto insurance companies directly paid for car repair services then the claims could be treated as intermediate inputs that could be subtracted from the insurance premiums to calculate the industries value-added, as is done with other industries. Since that is not the case, claims are deducted from premiums to measure final expenditures by consumers and business on (or

production by) the industry⁸. Conceptually these net premiums represent the insurance industries provision of:

1. Financial protection through the pooling of risk
2. Financial intermediation services through the investment of reserves to help cover current and extraordinary claims
3. Administrative services such as loss settlements, risk surveys, and loss-prevention plans.

To illustrate the importance of the use of net claims in avoiding double-counting in GDP, in 2007 premiums paid by consumers were \$205 billion, but net of claims returned to policy-holders (and indistinguishably spent on other goods and services) spending on insurance was \$83 billion.

Insurance claims can also be volatile; as a result net premiums can give a distorted view of economic activity when unusual events occur. In the past, during major catastrophes when insurance companies were probably most productive, their output (as measured by premiums net of claims) fell; the trade balance improved (as reinsurance payment/claims rose, lowering net import payments); GDP could either increase or decrease (because both household expenditures and imports were reduced); and household gross saving increased (because household expenditures for insurance—as measured by premiums net of claims—fell).

To address these problems BEA moved to:

- The use of expected claims (and expected investment income) in calculation net premiums and
- In accordance with the updated SNA, we plan to treat most of the impact of catastrophes as capital losses or “capital transfers (current period losses are used in estimating expected claims).”

The real – inflation-adjusted – output of the industry is not adjusted for risk. Neither the Producer Price Index (PPI) nor Consumer Price Index (CPI) address portion of changes in premiums associated with changes in risk (post 9/11). If risk increases, the whole increase in premiums is treated as a price increase, thereby overstating inflation and understating the industry’s real output and productivity. In addition to the problems of risk in deflating premiums there are significant problems in deflating intermediate costs (claims); for example, the increasing cost of construction.

There is a gap between national accounting and insurance terminology in relation to insurance matters. This obvious gap in terminology is also a problem internationally for the accounting of insurance company performance and outputs.

Post-employment benefits and pensions also represent a real accounting problem. There is a mix of information with no geographic distribution. In the US, an aging population is a real issue that affects unit labor costs. Not accounting for value of pensions has created an underestimate of labour cost. Thus the US Bureau of Economics (BEA) is changing the way that these are presented.

⁸ The investment income that represents a claim of the policyholders is also netted out.

“Accounting for Franchising”

Kevin Ozan

Global Corporate Controller, McDonald’s Corporation

Norman Prestage

Partner, Ernst & Young & Global Coordinating Partner, McDonald’s Corporation

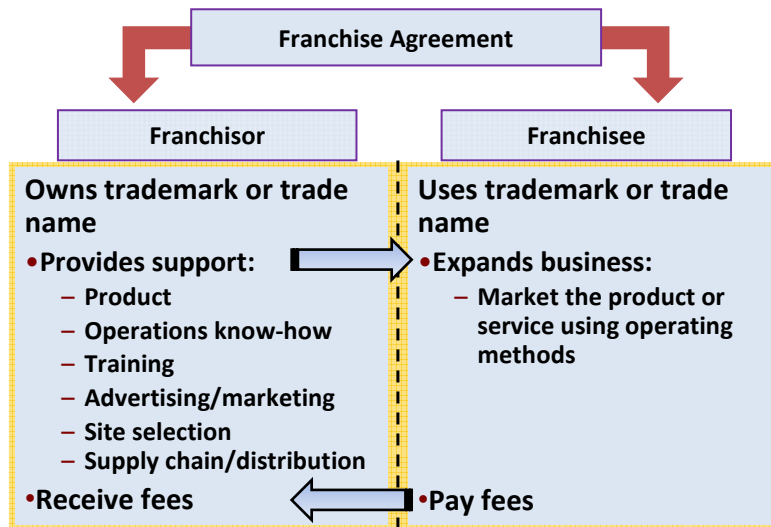
Ove Haxthausen

Vice President, MillwardBrown Optimor

What is a franchise? This is not an easy question to answer. Essentially a franchise is an agreement between parties (the franchisor and the franchisee) to do business where one party (the franchisor) has certain know-how, show-how and assets that the other party (the franchisee) wishes to use in the business and for which various economic rents are to be paid. This arrangement is shown in Figure 16.

Figure 16: The Franchise as an Economic Arrangement

What Is a Franchise?



There are two types of franchises – those relating to business systems and those relating to product distributions and these can be developed either as single-unit or as multi-unit franchises where the latter may contemplate and include area development franchises and/or master franchises.

Franchising is ultimately a business model that has had enormous impact across multiple industries as it continues to develop and become more sophisticated. The types of industries in which franchising has taken hold are shown in Figure 17.

Figure 17: Franchising-Friendly Industries

Over 75 industries worldwide ...

- **Restaurants**
 - McDonald's
 - Pizza Hut
- **Retail**
 - Radio Shack
- **Lodging**
 - Marriott Hotels
- **Business Services/Real Estate**
 - H&R Block
 - Century 21
- **Automotive Services**
 - Midas International



RadioShack.



H&R BLOCK®

The economic importance of franchising as a business model can be illustrated within the context of the US economy. In the US, franchised businesses provide more than 11 million jobs with a payroll of over \$275 billion and an output value of products and services of over \$875 billion from over 900,000 separate business establishments.

Globally, franchising is as impactful as it is in the US. McDonald's, as the epitome of the franchising model, is illustrative. McDonald's operates in 118 countries with over 31,000 restaurants, more than 75 percent of which are owned/operated by local franchisees. McDonald's serves 55 million people worldwide every day, and, together with its franchisees, McDonald's employs more than 1.5 million people. The McDonald's franchise system is represented by 4,000 plus independent entrepreneurs who operate their McDonald's restaurants in their local markets.

The McDonald's franchise model is one in which the following operating parameters apply – McDonald's assumes the obligations and risks of owning or leasing the land and building and earns its returns through rental, initial fees and royalties (after covering its costs including the costs of providing its services to its franchisees); while the franchisee assumes the obligations and risks of operating the franchise and earns its returns through its operating profit (after covering its operating costs). The initial investment/responsibility and ongoing investment/responsibility, as split between McDonald's and its franchisees are shown in Figure 18 and Figure 19.

Figure 18: McDonald's Franchise Model Initial Investment/ Responsibility Split

Initial Investment / Responsibility	
Franchisee	McDonald's
<ul style="list-style-type: none"> – Initial franchise fee – Signs, seating/décor, and equipment – Pre-opening costs (training, advertising, etc.) 	<ul style="list-style-type: none"> – Site selection – Land acquisition or long-term lease obligation – Site development and building construction – Operational training and consultation

Figure 19: McDonald's Franchise Model Ongoing Investment/ Responsibility Split

Ongoing Investment/Responsibility	
Franchisee	McDonald's
<ul style="list-style-type: none"> – Full-time best efforts – Adhere to operating business model – Training – Reinvestment (building and equipment) to comply with standards – Advertising contribution – Rent and royalties – Maintain financial stability 	<ul style="list-style-type: none"> – Operational training and consulting – Product and operations development – Marketing and advertising support – Supply chain management – Protect proprietary rights (trademarks, logos, etc.) – Architectural design and drawings

For McDonald's, revenues from the franchisee come from the initial (franchise) fee, the royalty fee stream (generally 4 percent to 5 percent of sales) and rental income (a base rental plus a percent of sales revenue). Franchised restaurant expenses are the rental expense paid by McDonald's to landlords and the depreciation on owned buildings as well as on leasehold improvements. McDonald's revenues and expenses for 2007 are shown in Figure 20.

Figure 20: Detail of McDonald's 2007 Income Statement

McDonald's Income Statement		(\$'s in millions)	
		2007	
Revenues			
Sales by Company-operated Restaurants		\$ 16,611	
Revenues from Franchised/Affiliated Restaurants		6,176	
Total Revenues		\$ 22,787	
Operating Costs and Expenses			
Company-operated Restaurants		\$ 13,742	
Franchised Restaurants		1,140	
G & A		2,367	
Impairment and Other Charges		1,670	
Other Operating Income		(11)	
Total Operating Costs and Expenses		\$ 18,908	
Operating Income		\$ 3,879	
Company-operated Margin		\$ 2,869	17.3%
Franchise Margin		\$ 5,036	81.5%

McDonald's represents a specific example of the franchising model. It is important to note that not all the features described are represented in other franchising models. McDonald's control over its real estate sites (whether owned or leased) is a distinguishing feature not often seen. In general terms then, it is important at the macro level to understand the variations that may exist in franchising models and the revenue and cost streams that result for the franchisor and franchisee in order to understand the economic consequence of franchising *en globo*.

As described above, a franchise is a commercial agreement to do business. Any particular franchise model is best understood through the revenues and costs that ensue.

In general terms, system revenues include sales of the overall business, whether operated by the franchisor, by franchisees or by affiliates. The franchisees' revenue streams generally are the basis on which the franchisor calculates and records franchised and affiliated revenues and provide an overall picture of the business' financial performance and the financial health of the franchisee base.

Typical service fees will include the initial franchise fee and fees based on continuing sales (representing the use of brand, and corporate services like supply chain and brand management, product research and management of the advertising function) while rental fees will be levied in those cases where the franchisor owns or leases land and building and then rents to franchisee (this does not exist where the franchisee owns the land and buildings).

In relation to fees, US GAAP Guidance on Accounting for Franchise Fee Revenue (FAS 45) provides the basis for a franchisor to determine when to recognize initial fee and when to recognize later revenues. It can be noted that service fees are based on revenue producing activity and that rent is tangible and can be separated from revenue recognition. It can be further noted that the indirect costs of managing system are expensed as they are incurred by franchisor.

Franchisor accounting can generally be characterized by the following:

- Rent and service fee income (which in part depends on franchisor's investment)
- COS = occupancy
- Record initial fee when store is operating and franchisor has satisfied performance obligations
- Record rent and service fee based on revenue producing activity – recorded monthly, based on sales
- SG&A – to manage the system
- Intangible Value (the franchisor will own/license its intellectual property, trademarks, service markets, patents, copyrights but because these are generally developed internally, these manifestations of IP may not have “recorded” value on the franchisor's balance sheet)⁹

Franchisee accounting can be generally be characterized by the following:

- Revenue = sales from actual goods
- Cost of sales = rent and service fees, food, payroll
- General and administrative – administration of the franchise operations, advertising
- Initial franchise fees related to the purchase of the business is often recorded on the franchisees' books as an intangible asset to be amortized over the franchise term

In addition to the above, there are a number of other considerations that will affect the determination of the value of a franchise system as this is partitioned between the franchisor and franchisees. These will include the following:

Property, Plant & Equipment

- Ownership/obligation structures of buildings/sites
- Reconstruction, major maintenance, expenditures on upgrades, whether required or not required by the franchise agreement

Supply Chain Management

- In the case where suppliers are parties other than the franchisor, related inventory costs are to a third party
- G&A – franchisees may pay the franchisor to manage and test (as a component of service fees)

Income Taxes

- Franchisee – taxable income is based on revenue from sales of goods less costs to operate business
- Franchisor – taxable income includes amounts recorded on rent and service fee income (as well as business operations, if the franchisor also operates its own businesses)

Consolidation

⁹ It should be also noted that goodwill often arises from purchase of franchisees or investments.

- The franchisor generally does not consolidate franchisees to extent control is less than 50% (note that US GAAP includes specific guidance regarding franchises)
- JV's sometimes used as an ownership structure

The Role of Marketing Co-ops

- Are generally separate businesses with the responsibility for purchasing regional or national advertising
- Are generally owned proportionally by all franchise operators (owned both by the company and franchisees)
- Are often funded with a percentage of operator's revenue
- Are governed by a board of owners with oversight responsibility

In sum, national statisticians need to be cognizant of the role of the franchisor when reading financial results and in doing so, understand franchisor's role and obligations and understand franchisee's responsibilities.

“Public Sector Intellectual Property – A Quandary?”

Dr. Richard (Rick) Brenner
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Dr. Martin Fleming
Global Vice President, Corporate Strategy, IBM Corporation

Ivo Havinga
Chief, Economic Statistics Branch, United Nations Statistics Division, United Nations

The utilization of public sector R&D is essentially defined by legislation. The first of the Acts that control public sector R&D were the Stevenson-Wydler and Bayh-Dole Acts of 1980. The Stevenson-Wydler Act of 1980 encouraged federal laboratories to become more engaged in technology transfer to the private sector, requiring that agencies establish an Office of Research and Technology Applications. These Acts defined the mechanisms for IP protection and commercialization of research outcomes arising from federal funds distributed extramurally to universities, and non-profits; and later, through Executive Order to all businesses.

The Federal Technology Transfer Act of 1986 (FTTA) furthered these activities by providing additional tools and incentives to encourage closer technology cooperation between R&D laboratories and the customers and stakeholders they serve. The FTTA and two subsequent Acts – the National Technology Transfer and Advancement Act of 1995 and the Technology Transfer Commercialization Act of 2000, provide the authority and mechanisms for federal employees to effect technology transfer.

The passage of these Acts has clearly changed the way in which cooperative interactions, patents, and licensing are approached. The Acts cover inventions arising from intramural research in the federal government. Collectively, they provide government agencies with the authority to enter into Cooperative Research and Development Agreements (CRADAs), obligate federal scientists to engage in technology transfer, and provide incentives for them to do so. The advantages to the private sector CRADA partners include the right to negotiate exclusive licenses to the inventions arising from the CRADA, and confidentiality of data for up to five years. In addition, the more recent legislation also allows federal laboratories to license “protectable” inventions, even if a patent is not sought.

Cooperative research with industry partners made a dramatic shift in policy.

Prior to the passage of the Acts, cooperative research was discouraged so as to maintain the “academic independence” of agency scientists. After passage of the Acts, especially the FTTA in 1986, federal

scientists were encouraged to use a new instrument, the Cooperative Research and Development Agreement (CRADA), to help meet mission priorities, thereby ensuring relevance and facilitating impact of importance to industry. Although patenting inventions has clearly been allowed since Thomas Jefferson established the Patent and Trademark Office, there was no incentive for the U.S. government agency, or the individual scientist, to go through the process.

Since the passage of the Acts, protected intellectual property, and technology transfer, has become a part of career promotion recognition within government agencies. Furthermore, patents adopted by the private sector for commercialization has provided a mechanism for revenue sharing with the inventors¹⁰.

Today, government agencies have full flexibility in terms of their commercialization options. They can license inventions, and do this on a non-exclusive, partially exclusive, or fully exclusive basis¹¹.

We illustrate the public/private partnering ARS for commercialization arrangement by referring to the United States Department of Agriculture's Agricultural Research Services (ARS).

Through the ARS office, a partnership is affected either through licensing current protected technologies, including plants, or through development of a cooperative R&D agreement to solve researchable issues for industry partners.

A summary of USDA licensing activities in 2006 is that of 332 licenses, 130 were with university co-inventors. 100 of these licenses produced commercial products and of these, 30 were based on plant materials. These data need to be seen in the context of partnering efforts to address feedstock development research. The USDA can and does protect and license varieties and plants.

In similar vein, US university technology transfer for a year earlier, 2005, saw 628 new businesses created and 527 new products launched based on innovations developed by US universities. In addition, there were 4,932 new licenses created and 28,349 active licenses reported by the Association of University Technology Managers (AUTM). R&D at US universities is valued at \$42 billion.

The conclusion is that R&D transfer and commercialization from the public sector (government agencies and universities) is well served by existing legislation and processes.

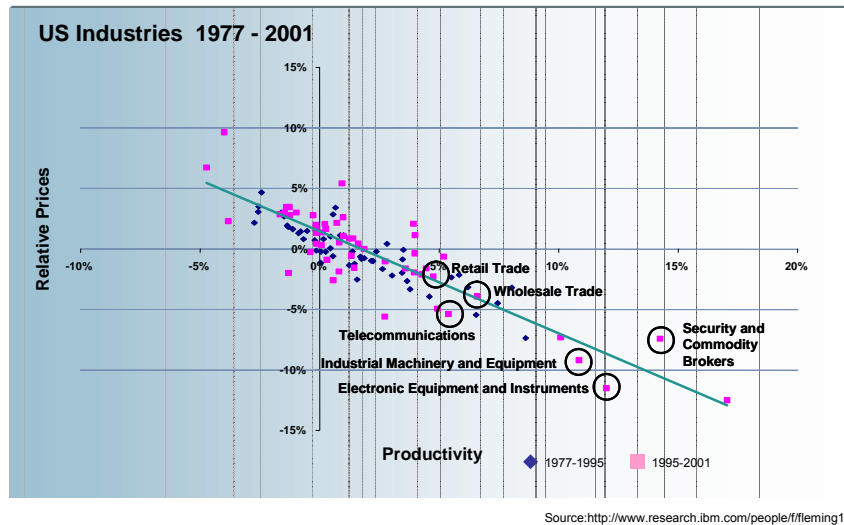
In a broader global context, it is clear that the economics of business have fundamentally changed. Global economic transformation brings increased market size, service sector development and emergence of open source development.

¹⁰ Before the Acts patented technologies could be made available to the private sector, but only as non-exclusive, royalty free licenses. This situation clearly provided little to no advantage to industry or to the inventor.

¹¹ In particular, an exclusive license permits the licensee to enforce patents against infringement. This helps protect further investment by the company in R&D to further the technology.

To illustrate, in relation to software development evidence suggests that IP assets are priced in alignment with the products they support. Industry transformation in relation to economic pressures is shown in Figure 21.

Figure 21: Industry Productivity Improvements in Response to Relative Price Reductions



The new model for innovation development in software is based on open source. This has developed as a standard as the sum of community innovations far exceeds what any single vendor can create. There are obvious trade-offs to be made within this environment but most software developers have accommodated this. The “open-source” development environment is shown in Figure 22 and “open source” collaboration success is shown in Figure 23. The new “open source” IP landscape for software development is shown in Figure 24.

Figure 22: The Open-Source Environment for Software Development

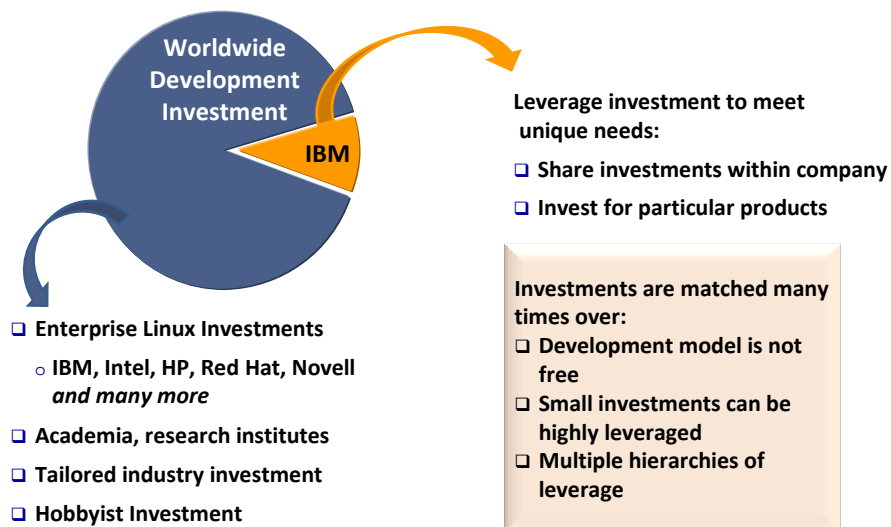


Figure 23: Open Source Collaborative Research Program Success

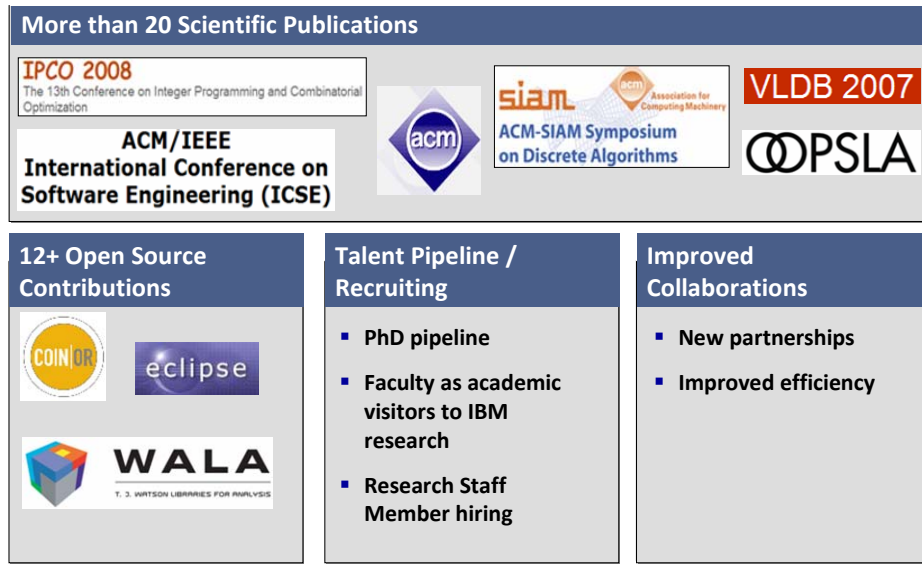
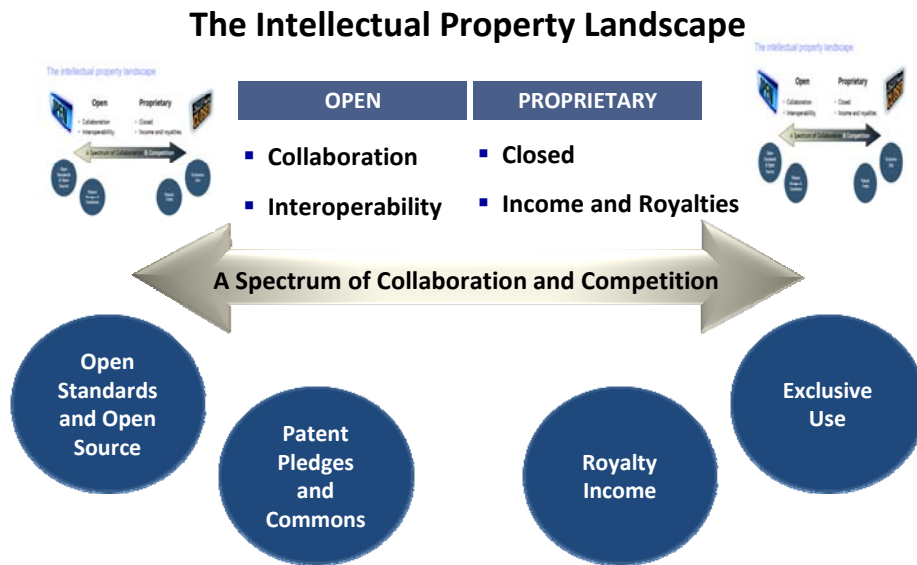


Figure 24: The IP Landscape for Software Development



In sum, there is an historic transformation underway in software development that is utilizing technology within the context of new business models and operations. Increased competitiveness is driving the emphasis on innovation and industry transformation. And the concentration on innovation and emerging business opportunities is increasingly causing intellectual property assets to be exploited.

“XBRL and SDMX Initiatives on Data and Information Preparation”

Michael (Mike) Willis

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René Piché

Senior Economist, Statistics Department, International Monetary Fund

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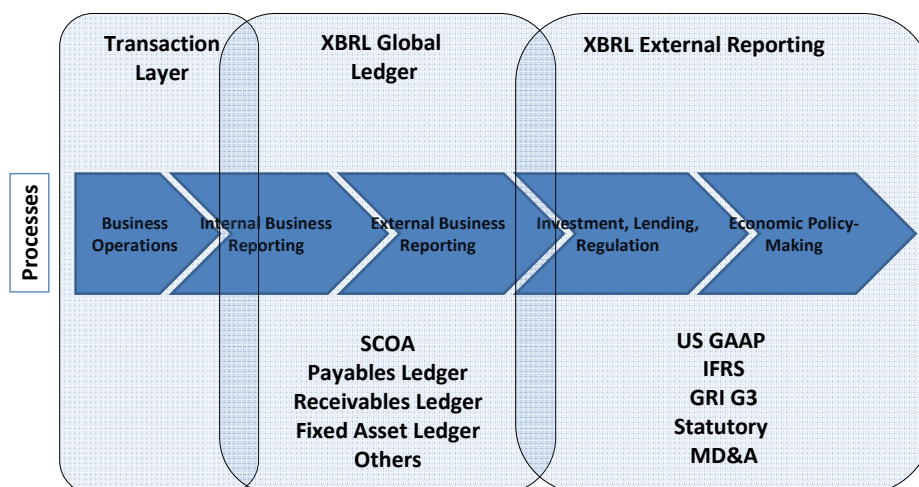
Chief, Statistical Services Branch, United Nations Statistics Branch, United Nations

The Extensible Business Reporting Language (XBRL) initiative is an international supply chain standardization effort comprised of over 600 organizations from 27 countries around the world. This open consortium is responsible for delivery of a freely available information format relevant for describing business information used for internal processes and external reporting purposes. To learn more about XBRL, visit <http://www.xbrl.org>.

The XBRL standard is designed for business information and is applicable to related business rules, formulas, controls, processes, and other relevant resources. The initiative, which is based on structuring information in a standardized manner so that it can be easily accessed and immediately reused by any relevant software applications, has been mandated by regulators around the world. Similar to other supply chain standardization efforts, XBRL enables the replacement of many currently pervasive manual process steps with automation. The relevance of the XBRL standard along the business reporting supply chain is shown in Figure 25.

Figure 25: XBRL Reporting Architecture

XBRL is designed to enhance the flow of information along the entire information supply chain



XBRL as an enabling standardized technology is being adopted in a number of major reporting environments in countries around the world. A number of examples are shown in Figure 26. More details are available at <http://www.xbrl.org>.

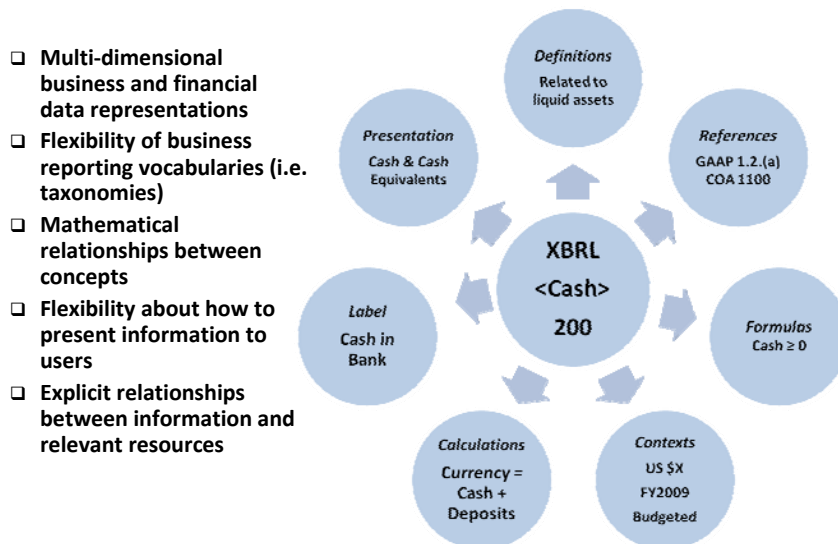
Figure 26: XBRL Adoption Countries

XBRL implementations is a market reality around the world

Country	Organization	Program/Application
Japan	Tokyo Stock Exchange (TSE), NTO, BoJ	TSE Registrant Financial Report Filings
United States	Securities Exchange Commission FFIEC/FDIC/FRS/OCC	XBRL Voluntary Filer Program Call Report Modernization
United Kingdom	Companies House HM Revenue and Customs	Accounts Filings Company Tax Filings
China	China Securities Regulatory Commission	Interactive Data Filing for Financial Statements
Australia	Australian Treasurer	Standard business reporting program – Business Centric Model
Netherlands	Min of Finance/Justice	Standard business reporting program – Business Centric Model
Singapore	ACRA	Mandatory Filing for all registrants
Korea	Financial Supervisory Service/DART	Mandatory Filing for all registrants

The promise and reality of XBRL is that it is designed to enhance a wide range of supply chain processes through its various capabilities. XBRL provides a range of multi-dimensional meta-data aspects as illustrated in Figure 27. These capabilities provide the standardized structure to articulate universally understood descriptions of important information processing attributes enabling process enhancements.

Figure 27: XBRL Multidimensional Applicability
XBRL provides a range of meta-data dimensions designed to improve supply chain processes

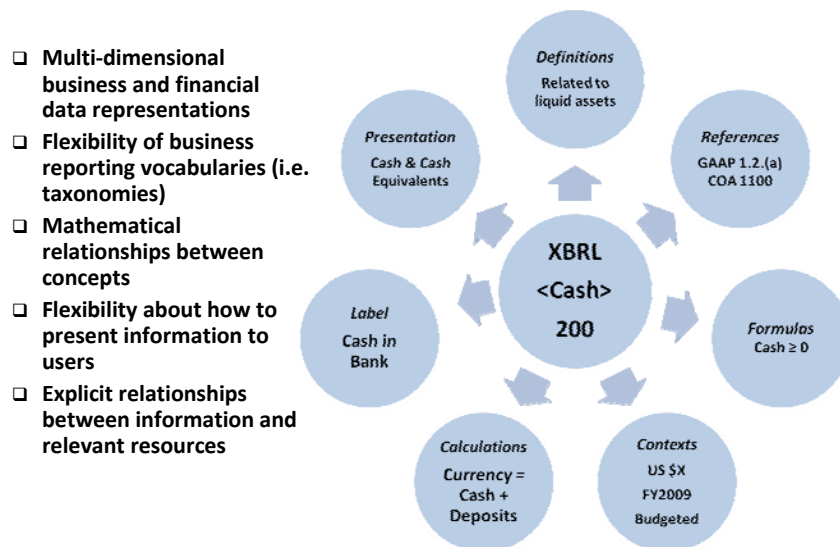


XBRL is currently being used to articulate the following:

- Information concepts (external disclosures and internal ledgers)
- Information contexts (including dimensions)
- Entity specific information concepts (unique extensions)
- References to relevant resources (standards, policies, etc.)
- Formulas (validation, analytical, controls)
- Alternative presentation labels (multiple languages)
- References to other concepts / standards (any of the above/others)
- Entities (and entity relationships structures)

The Statistical Data and Metadata eXchange (SDMX) is an international initiative focusing on the exchange of macro data. The problem space for SDMX is statistical collection and processing. Data exchange is time-consuming and resource-intensive. As a result, uncertainties exist about how to proceed with new technologies (XML, web services, and service oriented architecture). In addition, various international and national organisations have individual approaches for their constituencies. The SDMX initiative is taking steps to address these challenges and opportunities by focusing on business practices in the field of statistical information and by identifying more efficient processes for exchange and sharing of data and metadata using modern technology and open standards.

Figure 28: Meta Data and Aggregate Data Compilation and Analytic Application Environments
 XBRL provides a range of meta-data dimensions designed to improve supply chain processes



- ❑ Multi-dimensional business and financial data representations
- ❑ Flexibility of business reporting vocabularies (i.e. taxonomies)
- ❑ Mathematical relationships between concepts
- ❑ Flexibility about how to present information to users
- ❑ Explicit relationships between information and relevant resources

SDMX initiative was launched in 2002 and is made up of seven sponsoring international organizations:

- Bank for International Settlements
- European Central Bank
- Eurostat
- International Monetary Fund
- Organisation for Economic Cooperation and Development
- United Nations
- World Bank

The goals of SDMX are to reduce national reporting burden to international institutions by doing the following:

- Fostering the consistency, accuracy, and timeliness of data and meta data disseminated by national and international institutions, ultimately relying on what is decentralized data releases via national websites
- Providing standards for web-based dissemination formats that are computer readable and that facilitate updating of user databases
- Enhancing the comparison of data and meta data through standard formats and content-oriented guidelines
- Enhancing national statistical processing efficiency, through standard formats for data exchanges between statistical silos within institutions and with other national statistical agencies

To date, SDMX has been adopted by the Joint External Debt Hub, the European Central Bank, the IMF, Eurostat, the UNSD and OECD as well as the Food and Agriculture Organization, the International Labour Organization, UNESCO, and the US Federal Reserve Board, amongst others.

The XBRL and SDMX initiatives complement one another. Each initiative has as its progenitor the objective of enabling economic / business information to be captured and configured in such a way that information can be aggregated and/or transposed to enable virtually any economic or accounting phenomenon to be analyzed (XBRL) or for economic data representing significant economic phenomena to be aggregated and presented in user friendly environments such that they can be analyzed (SDMX).

“Conclusions”

Dr. J. Steven (Steve) Landefeld
Director, Bureau of Economic Analysis, United States Department of Commerce

This seminar session has been discouraging as well as encouraging. The information gaps in accounting are substantial but not insurmountable. Some information is being filled in with R&D; however, much is still missing. Too much is still unknown.

The economic value of intangibles is huge (the difference between the market value and replacement value of intangibles).

Quantitative indicators should not be aggregated. There are lots of affected and interested parties that want to see progress in the identification and recording of underreported or absent economic phenomena; but leadership is needed. The UN (UNSD) has a unique opportunity and the historic mandate to take the SNA forward as a comprehensive and relevant basis for macro-economic policy development globally. If the UN is able to take both a thought and an action leadership position, it is likely that other relevant parties will contribute to and support it in making the SNA as good as it can possibly be.