

Performance Measurement Models: the role of IAS / IFRS standards and XBRL language.

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1. Introduction

To implement a sound Performance Measurement Model, a relevant issue is the selection of a proper set of measures. In this sense, a good starting point could be the analysis of the Annual Report containing all the relevant financial data about a company.

It is a generally accepted fact that Annual Reports are a good means of describing the situation of a company to all the stakeholders although it is difficult to compare Annual Reports coming from different entities. A process of harmonization of European accounting principles was started in order to bring Annual Reports into line and it is currently being carried out through the adoption of IAS/IFRS standards.

Once Annual Reports have been created adopting a common accounting standard, the very next step is to code them using the same IT language. If a common computer language is selected, Annual Reports or other documents can easily be compared without recoding and retyping them.

The starting point of this process is the definition of an appropriate *taxonomy* to be used by both those drafting and reading the documents.

The process of choosing an appropriate Accounting Standard, selecting the related taxonomy and, finally, compiling documents using XBRL language leads companies to produce sound, meaningful and clear documents that greatly improve sharing of useful information. Moreover, the adoption of IAS/IFRS standards and XBRL encoded statements provides a set of measures for building sound and widely accepted models.

Those models may provide the basis for both internal and external comparisons and analyses. As a matter of fact, a company can easily compare its current situation with its previous performance and, furthermore, can compare its situation with that of other companies of the same industrial sector. Moreover, these analyses could be provided to external stakeholders to be judged in a more complete and objective way.

2. Performance Measurement: an Information System approach

In the literature many definitions of Performance Measurement and Performance Measurement System can be found. While “*Performance Measurement* can be defined as the process of quantifying the efficiency and effectiveness of action”, a “*Performance Measurement System* can be defined as the set of metrics used to quantify both the efficiency and effectiveness of actions” (Neely, 1995). Moreover, it should be pointed out that these definitions focus on reference theoretical models rather than on operational models to be effectively used in a company.

Implementation of these conceptual models using information technology is known as "Business Performance Management" (BPM): BPM is defined "as a set of integrated, closed-loop management and analytic processes, supported by technologies, that address financial

and operational activities. BPM helps businesses define strategic goals and measure and manage performance against those goals" (Whiting 2004). In other words, "BPM can be described as a series of business processes and applications designed to optimize both the development and the execution of business strategy" (Frolick and Ariyachandra, 2006; Eckerson, 2004).

Considering the complexity of reference models, the amount of data to be processed and the multiplicity of channels originating the data, use of computer systems is a must and therefore the abovementioned processes and applications fall within the more general application framework of Information Systems (IS).

IS are defined as systems of people, data records and activities that process the data and information in an organization, and they include the organization's manual and automated processes aimed at supporting managers. Broadly speaking, IS should support the development and execution of strategies at various management levels (Turban et al., 2006).

Decision support system (DSS)	A computer-based support for management decision makers who are dealing with semistructured problems
Expert Systems (ES)	A computer-based system that behaves like a human expert
Executive Information System (EIS)	A computer-based system that serves the information needs of top executives
Business Intelligence (BI)	A broad category of applications and technologies for gathering, storing, analyzing, and providing access to data to help enterprise users make better business decisions
Business Performance Management (BPM)	A series of business processes and applications designed to optimize both the development and the execution of business strategy

Table 1: The Historic Evolution in Decision Support (source: our revision of Frolick and Ariyachandra 2006)

A long evolution path has accompanied Information Systems (see Table 1): more than thirty years ago the so called Decision Support Systems (DSS) emerged (Keen, 1980). DSS were based on models and data: by means of models, DSS were able to transform data in useful information and knowledge. Moreover, they were supposed to support decision-making processes at all management levels.

After DSS came Expert Systems (ES), which were based on Artificial Intelligence paradigms. ES should behave like human experts and help managers in their tasks. The approach was interesting, but the technology was still too premature and thus these systems turned out to be too simplistic. ES lasted few years and then slowly faded away. For a short while it seemed that top managers would adopt Executive Information Systems (EIS), but also in this case the proposed systems were too simplistic and never had a widespread diffusion.

Anyhow the experience gathered from DSS and ES was adopted by a brand new class of applications: Business Intelligence (BI) systems. In fact, BI are systems able to transform data in useful information and knowledge to support decision-making processes, for seeking the objectives that enterprises must pursue in order for them to sustain their competitive advantage (Porter 1980). Moreover, some BI modules, Data Mining Modules in particular, rely for some aspects on Artificial Intelligence paradigms.

The merging of Business Intelligence with models based on such theories as Balanced Scorecard (BSC) (Kaplan and Norton, 1996) that define which variables or aspects must be evaluated finally led to the definition of a new class of applications, Business Performance Management (BPM).

An aspect in which DSS and BPM are similar is the adoption of models. In the DSS paradigm there was a set of models that the manager could utilize to carry out the decision-making process. Those models were relatively simple and strictly formalized through the use of particular high-level languages.

The role of models should be considered extremely relevant: some analysts such as Gartner differentiate between BI and BPM and consider the latter as the ultimate Strategic Information Systems. Each industry analyst and software vendor has a different interpretation of the core processes that influence BPM. These generally include but are not limited to:

- Budgeting, planning and forecasting
- Profitability modeling & optimization
- Scorecard & dashboard applications
- Financial consolidation
- Statutory and management reporting

BPMs are dedicated to performance assessment with a traditionally internal orientation, being specifically targeted to top management. Could BPMs also be used with an external orientation? That is, could information resulting from these systems have significant interest also for external stakeholders?

The literature has established a causal link between good communication and value of shares (Bonson et al., 2008). If the spread of the Internet has caused a dramatic increase in information availability, the quality of the material that users can often find does not match expectations. And even if the desired information is found, a long process of recoding and manual re-entry of data is still required. It is therefore critical for the system to find suitable means of communication to facilitate a smooth exchange of information.

We believe that it is possible to use those same systems that provide useful information for improving performance also to enhance external communication. The content of external communications must be carefully vetted. They must be enhanced without disclosing strategic information. It is clear that not all information derived from the PMS can be disclosed outside the company.

The information technology that supports the management of the BSC model is extremely relevant, but we have to notice that the technology itself is becoming increasingly affordable and easy to use. Generally speaking, it is possible to divide the company's Information System in two categories: *On Line Transaction Processing System* (OLTP System) and *On Line Analytical Processing System* (OLAP System), as depicted in Figure 1. The former is devoted to support all processing of business transactions or, in other words, to support the basic activities of a company. The latter, OLAP System, is designed to support higher level activities, i.e. the managers' tasks. As we explained before, for this reason a reference model such as the Balanced Scorecard (BSC) or other performance evaluation related models are usually adopted.

As shown in Figure 1, by means of XBRL, it is possible to extract relevant disclosures listed in the Financial Report, while problems arise when attempting to extract information to complete the Notes to the Financial Statement or the Directors' Report. OLTP systems do not contain the data which is necessary for this task: we have to find additional information, such as number and specialization of employees, markets, distribution channels, etc. and then feed OLAP systems. From OLAP systems, by means of XBRL, it is possible to obtain the desired disclosures.

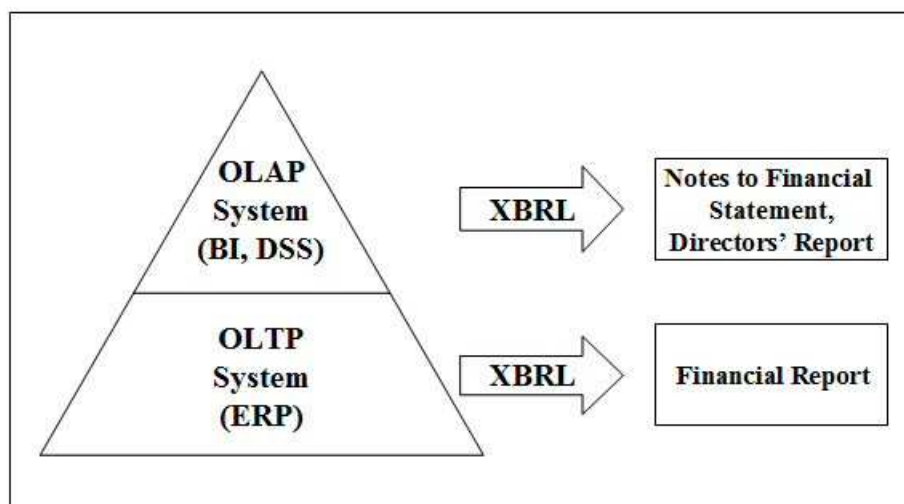


Figure 1: OLTP System and OLAP System

It is important to remark that the development of information and therefore the production of reports for internal and external use is done not only by the application of certain conceptual models on well-defined input data but also output is achieved through a carefully defined process. Hence the ability not only to automatically, and therefore at "zero cost", produce documentation on the process but also to provide adequate process "assurance" by documenting both the extraction and processing of input data as well as the entire process of preparing reports.

3. Performance Measurement, taxonomies and XBRL

There are two types of corporate communication to the outside world: on the one hand, traditional financial and other information in its many unstructured forms and, on the other, a new type of structured communication based on computerized, but above all encoded, documents.

It is on this latter type that we will concentrate our attention: our work will focus on the possibility of information systems to generate communication rich in content and with high added value, without moreover being excessively costly and, above all, automatically, that is without further intervention.

Many Stock Exchange supervisory authorities, such as the U.S. Securities & Exchange Commission (SEC) or the Italian "Commissione per il Controllo della Borsa" (Consob), have begun to ask listed companies to add to their free-form information also documents encoded using XBRL (eXtensible Business Reporting Language). The main reasons for this request, among others, are: to have documents that can be used directly without the need of having to recode and/or re-enter them manually; have encoded documents in the same manner and thus comparable; have standardized documents that can be used on different hardware and software; have documents that can be analyzed automatically and can be saved by creating databases of rich, consistent, and truly comparable information.

Traditional financial statements that were sent to supervisory authorities in fact needed to be re-encoded and re-entered in the database with a non-computerized process, requiring, among other things, a significant unification effort which, however, was often not obtained.

Consider, for example, two financial statements of two separate companies: not only is it possible and highly probable that the format is different but also the contents (i.e. the

individual items, also called elements) have a different format and meaning. In practice, to compare the two financial statements, we would need to have items with the same format and meaning.

XBRL solves this problem by “tagging” individual items of data in a way that the computer of another user can understand and work with. “Tagging” is the process of assigning standard or customized identifiers (the so called *tags*) to information in a financial accounting source file, such as a financial statement.

<pre> <ifrs-gp:AssetsHeldSale contextRef="Current_AsOf" unitRef="U-Euros" decimals="0">100000</ifrs-gp:AssetsHeldSale> <ifrs-gp:ConstructionProgressCurrent contextRef="Current_AsOf" unitRef="U-Euros" decimals="0">100000</ifrs- gp:ConstructionProgressCurrent> <ifrs-gp:Inventories contextRef="Current_AsOf" unitRef="U-Euros" decimals="0">100000</ifrs-gp:Inventories> <ifrs-gp:OtherFinancialAssetsCurrent contextRef="Current_AsOf" unitRef="U-Euros" decimals="0">100000</ifrs- gp:OtherFinancialAssetsCurrent> <ifrs-gp:HedgingInstrumentsCurrentAsset contextRef="Current_AsOf" unitRef="U-Euros" decimals="0">100000</ifrs- gp:HedgingInstrumentsCurrentAsset> <ifrs-gp:CurrentTaxReceivables contextRef="Current_AsOf" unitRef="U- Euros" decimals="0">100000</ifrs-gp:CurrentTaxReceivables> <ifrs-gp:TradeOtherReceivablesNetCurrent contextRef="Current_AsOf" unitRef="U-Euros" decimals="0">100000</ifrs- gp:TradeOtherReceivablesNetCurrent> <ifrs-gp:PrepaymentsCurrent contextRef="Current_AsOf" unitRef="U-Euros" decimals="0">100000</ifrs-gp:PrepaymentsCurrent> <ifrs-gp:CashCashEquivalents contextRef="Current_AsOf" unitRef="U- Euros" decimals="0">100000</ifrs-gp:CashCashEquivalents> <ifrs-gp:OtherAssetsCurrent contextRef="Current_AsOf" unitRef="U-Euros" decimals="0">100000</ifrs-gp:OtherAssetsCurrent> <ifrs-gp:AssetsCurrentTotal contextRef="Current_AsOf" unitRef="U-Euros" decimals="0">1000000</ifrs-gp:AssetsCurrentTotal> </pre>	<p>CURRENT ASSETS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Assets Held for Sale</td> <td style="text-align: right;">100,000</td> </tr> <tr> <td>Construction in Progress, Current</td> <td style="text-align: right;">100,000</td> </tr> <tr> <td>Inventories</td> <td style="text-align: right;">100,000</td> </tr> <tr> <td>Other Financial Assets, Current</td> <td style="text-align: right;">100,000</td> </tr> <tr> <td>Hedging Instruments, Current (Asset)</td> <td style="text-align: right;">100,000</td> </tr> <tr> <td>Current Tax Receivables</td> <td style="text-align: right;">100,000</td> </tr> <tr> <td>Trade and Other Receivables, Net, Current</td> <td style="text-align: right;">100,000</td> </tr> <tr> <td>Prepayments, Current</td> <td style="text-align: right;">100,000</td> </tr> <tr> <td>Cash and Cash Equivalents</td> <td style="text-align: right;">100,000</td> </tr> <tr> <td>Other Assets, Current</td> <td style="text-align: right;">100,000</td> </tr> <tr> <td>Current Assets Total</td> <td style="text-align: right;">1,000,000</td> </tr> </table>	Assets Held for Sale	100,000	Construction in Progress, Current	100,000	Inventories	100,000	Other Financial Assets, Current	100,000	Hedging Instruments, Current (Asset)	100,000	Current Tax Receivables	100,000	Trade and Other Receivables, Net, Current	100,000	Prepayments, Current	100,000	Cash and Cash Equivalents	100,000	Other Assets, Current	100,000	Current Assets Total	1,000,000
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Figure 2: An example of a XBRL document (on the left), compared with the same information processed by a browser (source: XBRL.org)

A tagged document is readable by a human expert using a normal browser, but it is also correctly readable and understandable by software applications (see Figure 2).

Basic Attributes		
	Label	Finite-Lived Intangible Assets, Net
	Element name	FiniteLivedIntangibleAssetsNet
	Description	“The aggregate sum of gross carrying value of a major finite-lived intangible asset class, less accumulated amortization and any impairment charges. A major class is composed of intangible assets that can be grouped together because they are similar, either by their nature or by their use in the operations of a company.”
	Data type	Monetary
	Balance type	Debit
	Period type	Instant
	Reference	Publisher: FASB Name: Statement of Financial Accounting Standard (FAS) Number: 142 Paragraph: 45 Subparagraph: a(1)
Relationships		
	Presentation	Finite Lived Intangible Assets, Net, Noncurrent Classification [Abstract] Finite Lived Intangible Assets, Gross Finite Lived Intangible Assets, Accumulated Amortization Finite Lived Intangible Assets, Net
	Calculation	Finite Lived Intangible Assets, Net, Total= + Finite Lived Intangible Assets, Gross, Noncurrent - Finite Lived Intangible Assets, Accumulated Amortization, noncurrent
	Dimension	Statement of Financial Position [Line Item] Statement [Table] Assets [Abstract] Assets, Noncurrent [Abstract] Intangible Assets, Noncurrent [Abstract] Indefinite Lived Intangible Assets, Net Finite Lived Intangible Assets, Net

Table 2: Basic Attributes and Relationships of the XBRL element "Finite-Lived Intangible Assets, Net" (source: US GAAP Taxonomy)

For this reason the SEC, when referring to XBRL reports, adopted the term "*interactive data*".

XBRL is in reality only a language, that is a formalization of a broader frame of reference. This model is contained in a so-called "*taxonomy*". As we shall see there are many taxonomies available. We have to underline that a taxonomy is not a new accounting standard but rather a strict coding which enhances the usability of those already existing.

A taxonomy is a kind of vocabulary that contains all the necessary definitions, on the one hand, to create an XBRL document and, on the other, to interpret it in a unique and automatic manner. In particular, each taxonomy includes all the *basic attributes* and *relationships* that may be used to tag the single elements of a document. As an example, for each element, the U.S. GAAP taxonomy provides seven basic attributes and three relationships, as shown in Table 2.

To create a document in XBRL format, the so-called "*instance*", we start from the traditional Financial Statement and, using appropriate software, apply a certain taxonomy, thus "translating" the document (see Figure 3). In this way an XBRL instance document is obtained which contains company information encoded correctly.

Note that this fully automated process also verifies not only formal correctness of data but also controls compliance with all accounting rules contained in the taxonomy itself or defined by the selected accounting model.

See in this regard the example in Table 2, in which the relationships between the item "Finite-Lived Intangible Assets, Net" and all other elements to which it is connected are encoded.

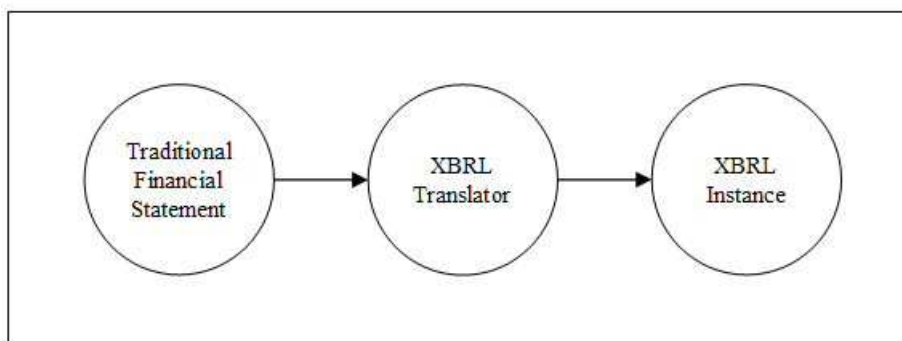


Figure 3: the process of creating an instance

The role of XBRL, however, does not end with the creation of documents that can be automatically read by institutional bodies such as Stock Exchange supervisory authorities: its role in our view can be much more important.

If we distinguish the communication flows between internal and external information, we can see how XBRL can be profitably used in other contexts (see Figure 4). To communicate between two internal systems, such as the OLTP system and the OLAP system, there are no technical problems. Since these systems belong to the same company, it can define the desired format and content of the various files.

However, when the company needs to interface with external bodies, it is very likely that the systems are different and therefore are unable to communicate. This causes the need, as we have said, to encode and manually enter data into the various systems.

On the other hand, structuring communication through the use of XBRL, the company obtains formalized input files able to automatically feed their BPM systems. These systems can then produce, as we have mentioned, output files also structured using XBRL. Files which in turn can automatically feed other systems.

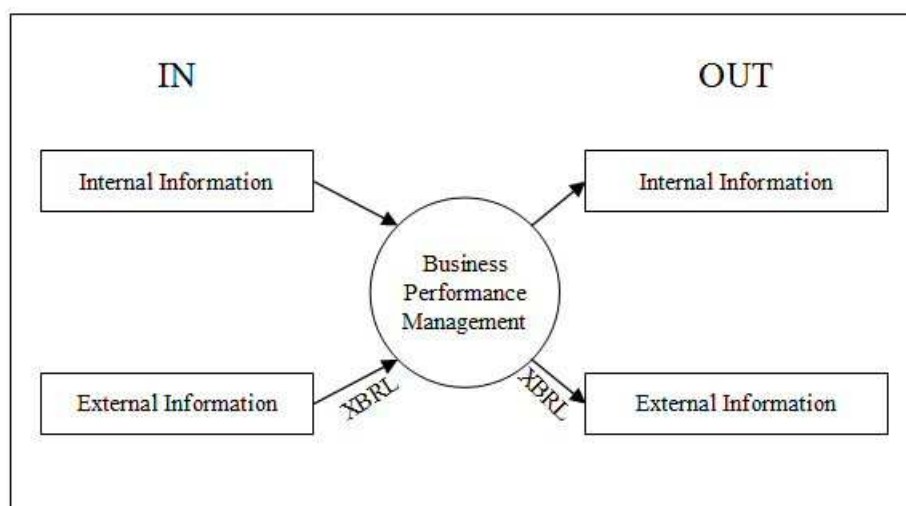


Figure 4: Input and output files

4. Adoption of the IFRS standards and effects in terms of business performance

The adoption of the IAS/IFRS principles has brought about a radical change in certain key aspects of the drawing of the financial statements. For several years now, the IASB has been making significant revisions to some basic accounting rules, also in view of the future convergence between the IFRSs and the US-GAAPs¹.

One of the themes that will be affected by this revision process is the concept of income formation, and therefore the IFRS approach to the definition of business performance. As is well-known, the framework outlined by the IASB is characterized by what is known as Balance Sheet-Based approach, where the balance sheet statement acquires greater significance than the income statement. Consequently, on the basis of this reasoning (predominant in English-speaking countries), the operating result is determined as an effect of the recording and valuation of assets in the balance sheet. This is confirmed by the importance attributed by the IASB to the criteria for defining and valuating balance sheet assets: one example is the definition of *income*² and *expense* provided in paragraph 70 of the Framework (letter a) and b) respectively). This approach was approved from the very beginning by the FASB (Camfferman and Zeff, 2007³), and is corroborated not only by the general concept expressed in the framework, but also by some fundamental evaluation criteria⁴. Among these, a major example is the fair value criterion - mandatory in some cases, allowed in others - which has given rise to heated debate concerning its effects on the representation of corporate assets. As is well-known, according to the Balance Sheet-Based approach⁵ the concept of income is to be derived from the measurement of changes in the

1 Norwalk Agreement FASB-IASB, September, 2002; A Roadmap for Convergence between IFRSs and US GAAP 2006-2008, Memorandum of Understanding between the FASB and the IASB 27 February 2006 (MoU); IASB-FASB Joint Statement on Convergence Work – June 2010.

² Both for the concept of *income* and of *expense*, the balance-sheet based approach results in a close correlation between positive and negative income components and changes in assets and liabilities, respectively. As an example, the definition of income could be quoted: "Income is increases in economic benefits during the accounting period in the form of inflows or enhancement fo assets or decreases of liabilities that result in increases in equity, other than those relating to contribution from equity participants". IASB Framework, pr. 70, lettera a).

³ Camfferman K. and Zeff A.S., Financial Reporting and Global Capital Markets, Oxford, 2007.

⁴ As an example, we recall the prohibition to record multi-year charges in the balance sheet, as they do not qualify as "assets", a possibility that is allowed by Italian accounting principles.

⁵ At this regard, the FASB expressly recognizes a sort of "supremacy" of the balance sheet over the income statement, based on the need to determine first of all the assets and liabilities, and subsequently calculate the operating income. On this topic, see Dichev I.D., On the Balance Sheet-based Model of Financial Reporting, Ceasa, 2007.

value of corporate assets, and this implies as a “natural” consequence the propensity to adopt a criterion of fair value valuation of the individual asset items. Although in IFRS-compliant balance sheets this does not occur on a general basis but only in some cases, the resulting representation of assets would be more realistic, as it expresses the valuations at current value, and more importantly it helps to overcome the problems related to the matching of costs and revenues⁶.

However, the practical application of fair value in the balance sheet, and the difficulties associated with the valuation of fixed assets at the current values⁷ have not allowed the “full” adoption of this approach by the standard setters. Therefore, the determination of the operating income, and consequently of the company’s performance, continues to be heavily influenced by the extreme diversity of the valuation criteria allowed by the IASB, since, besides the historical cost criterion, other principles, including fair value, value in use, and reconstruction value are also mandatory/allowed. The use of different accounting “conventions” gives rise to “non-pure” income models, i.e. polluted by the simultaneous presence of multiple valuation criteria⁸.

At European level, income determination on the basis of the IFRSs has been characterized by a series of evolution steps that have caused considerable changes, with the common aim to improve external disclosure of the real performance achieved by the companies, in order to meet the information needs of the potential investors (IASCF, Framework for the Preparation and Presentation of Financial Statements, 1989; Conceptual Framework for Financial Reporting 2010 (the IFRS Framework) approved by the IASB, September 2010). While the historical cost criterion has not been abandoned, the adoption of fair value as benchmark” criterion has led, in general terms, to the abandonment of the concept of realized or produced income and the introduction of the concept of “true and fair view” of the income, financial and asset position, including factors of future realizability. This is known as a “hybrid” or realizable income structure, i.e. an income structure inclusive of proceeds and revenues that, although accrued, have not yet been realized, and are linked to the application of the fair value criterion. This results in an increase in the number of items to be recorded as income components, which must be measured solely on an accrual basis, since accrual is sufficient and actual realization is not required.

Income Statement structure: the IASB-ASB project

The new concept of income must therefore be associated with an appropriate income statement structure that will represent the different conceptual approach in a consistent manner. The income statement schedule under IAS 1 does not require a rigidly set form; in fact, only the minimum number of entries is required: this means that the financial statements of different companies are not comparable, and therefore the actual performances cannot be

⁶ The costs/revenues correlation principle finds theoretical grounds in a series of questionable assumptions leading to the introduction of suspended costs and revenues in the balance sheet, which, according to the supporters of the balance sheet based approach, alters the representation of equity in the financial statements, and therefore the latter’s significance. In Dichev’s words: “... the income statement approach is conceptually suspect because it relies on vague concepts like matching”. (Dichev, 2007).

⁷ The valuation of all assets at fair value would lead to the determination of a shareholders’ equity that would assume the configuration of gone-concern capital. The adoption of other valuation criteria, such as replacement cost, would involve similar issues, except for the practical possibility of calculating the value in use for all assets. In this case, the balance-sheet based approach results in a correct representation of capital and income, despite the fact that the critical issue related to cost/revenue matching would actually not be removed, since costs would be replaced by cash outflows and revenues by cash inflows in the long term. This coincidence applies not only to assets but also to receivables and payables on the basis of the so-called “revenue anticipation approach”. For further details see Capaldo P., “Reddito, capitale e bilancio di esercizio. Una introduzione”, Milano, Giuffrè, 1998.

⁸ This applies both to IFRS-compliant financial statements and for those prepared according to domestic accounting principles.

compared through the calculation of profitability indexes like ROE, ROI, EVA etc. This issue, perceived by the international standard setters, led to the need to revise the accounting principle, and resulted in the development of projects aimed at improving the representation of the so-called “comprehensive income”⁹. We could quote the project put in place between the IASB and the Accounting Standard Board (ASB) of the United Kingdom¹⁰, aimed at analyzing the method of representation of the comprehensive income. This definition is taken from US Statement of Financial Accounting Standard 130, entitled *Reporting Comprehensive Income*, and refers to a broader concept of income: an “all-inclusive income”¹¹, i.e. the change in the company’s equity as a result of transactions other than those deriving from relationships with the shareholders in the form of capital contributions and distributions. The purpose of the IASB-ASB project arises from the need to work out a statement that will represent both the concept of realized income based on historical values, and the other *comprehensive income* components, which should not appear in the traditional income statement schedule.

The structure required the classification of the positive and negative income components in business areas, so as to highlight each area’s contribution to the operating result. The statement is subdivided into five macro-areas concerning the company’s core operations (business), its financial management (financing), taxes, discontinuing operations, and financial instruments for cash flow coverage. Additionally, the components, classified in the different areas on the basis of their nature, are shown in three columns:

1. the first (*Non-remeasurements*) contains values corresponding to the initial measurement of costs and revenues at the time when the respective assets and liabilities are recorded in the financial statements;
2. the second (*Remeasurements*) contains values obtained from the so-called remeasurements, i.e. cases where the value corresponding to the initial valuation of assets and liabilities is subsequently changed as a result of variations in market prices, changes in the estimates, updates to valuations, leading to a new valuation¹²;
3. the third column contains the totals of the previous columns;

The purpose of setting up this type of statement, named “Statement of Comprehensive Income” was to provide financial analysts with supporting elements to estimate value creation. The Business macro-area, subdivided into three categories (operating profit, other profit and loss, financial income), was obtained residually compared to the others, and the determination of intermediate results helped to separate business from financial activities for forecast analysis purposes. For example, core business results can be forecast using the

⁹ According to the IASB, “comprehensive income equals income less expenses which equals the change in equity (net asset) from nonowner sources”.

¹⁰ The IASB-ASB project has not been completed and has not formulated an accounting principle, although it did start extensive theoretical debate. On this topic, see: Hague I.P.N., “Raising the standards”, CA Magazine, Vol. 135, no.7, September 2002, pages 41-42; Mariniello L.F., “L’applicazione degli IFRS e la performance d’impresa”, Rivista dei Dottori Commercialisti, no. 3, 2004, pages 504-509; Catuogno S., “Il Comprehensive Income nei progetti contabili internazionali”, in Rivista italiana di Ragioneria e di Economia Aziendale, March-April 2007, pages 198-201.

¹¹ Numerous international studies insist on the usefulness of adopting, along the net income concept, also the concept of comprehensive income, disclosure of which became mandatory in the US in 1997. According to other studies, the concept of comprehensive income is not superior to net income as a performance measurement tool (Dhalival D., Subramanyam K.R., Trezevant R., Is Comprehensive Income Superior to Net Income as a Measure of firm Performance? Journal of Accounting and Economics, 26/1999, pages 43-97; Cahan S.F., Courtenay S.M., Gronewoller P.L., Upton D.R., Value Relevance of Mandate of Comprehensive Income Disclosure, in Journal of Business Finance and Accounting, 27/2000, pages 1273-1303) while the following studies support the opposite view: Mojtabeh Z., Momeni M., The Effect of the Comprehensive Income Statement on the Decisions of the Financial Statements Users: View & Perspectives, Iranian Accounting and Auditing Review, 31/2003, pages 75-96; Saeedi A., Examining of the Superiority of Comprehensive Income to Net Income as a Measure of Firm Performance, European Journal of Scientific Research, 19/2008, pages 469-481.

¹² The document included a table listing the accounting principles calling for remeasurements at year end, including but not limited to IAS 2, IAS 11, IAS 16, IAS 19, etc..

discounted cash flow method; conversely, financial assets can be valued using financial market prices.

The statement indicated in the project was a triple-entry matrix table as shown in Figure 5.

	Total	Non Remeasurements	Measurements
<i>Revenue</i>			
<i>Write-down of accounts</i>			
<i>Receivable</i>			
<i>Cost of sales: Selling, general, admin</i>			
Operating Profit			
<i>Disposal gain/loss</i>			
<i>PPE revaluation</i>			
<i>Investment property</i>			
<i>Goodwill</i>			
<i>FX gain/loss on net investment</i>			
Other Business profit			
<i>Income from associates</i>			
<i>Equity investments</i>			
<i>Debt investments</i>			
<i>Pension assets</i>			
Financial income			
Business profit			
<i>Interest on liabilities</i>			
<i>Pension financing expenses</i>			
Financing expense			
Tax			
Discontinued operations			
Cash flow hedges			
Comprehensive Income			

Figure 5: Statement of Comprehensive Income according to the IASB-ASB project

The intermediate results, thus highlighted, would then provide useful information on each macro-area: the operating profit would express the generated income without considering the invested capital structure; the financing expenses express the cost of capital; the result of discontinued operations expresses a valuation of the economic consequences of discontinued business activities. The table form of the statement shown above provides the possibility of recording separately the portions of income that are influenced by estimates from the other parts, providing information on the senior management's managerial abilities; moreover, the proportion of the total values ratio shown in the second and third column could provide information on the degree of reliability of the results. In this perspective, the statement appears to be improved compared to the traditional statement, so as to provide useful parameters for the calculation of performance indicators, such as the Economic Value Added (EVA) and the Integrated Economic Income (Reddito Economico Integrato - REI): what is observed is an attempt by the IASB (albeit not converted into operating reality), to present basic information in a manner that will facilitate the subsequent formulation of a value reporting or business reporting document.

Income Statement structure: the IASB-FASB project

The international standard setter's strong need to improve the comparability of the income statement schedule and to provide more correct information on the company's performance is thus incorporated into the IFRS-US-GAAP convergence project¹³, which calls for the

¹³ The FASB also had a similar project to the IASB's, entitled "Reporting Financial Performance by Business Enterprises", dating back to 2001.

implementation of a series of joint projects. One of the issues addressed by the two boards is the IAS 1, i.e. the methods for preparing the balance sheet and income statement schedules. The project is organized into three phases; the first one (Phase A), now completed, included an analysis of the issues affecting financial statement representations, and has resulted in the IAS 1 Revised, applicable as of financial year 2009. The most significant innovation was found in the income statement schedule, for which company officials may choose one of two solutions: to submit a single statement inclusive of both “traditional” changes in operating results, of a strictly economic nature, and changes in equity other than those deriving from transactions with shareholders (‘statement of comprehensive income’ *strictu sensu*), or to prepare two separate statements. In this case, there will be a statement (separate income statement) that only contains positive and negative income components from which the operating profit or loss can be obtained, while the second statement will contain the Other Comprehensive Income (OCI), i.e. the costs and revenues recorded directly under Equity and must indicate the operating profit or loss. Actually, therefore, if the company opts for two separate statements, the last line of the separate income statement will coincide with the first line of the ‘other comprehensive income’ separate statement. The IAS 1 also requires a minimum number of items that must be included in the financial statements regardless of the form that has been chosen, as listed below:

- sales revenues;
- financial costs;
- relevant portion of profits/losses from equity investments in associated companies and joint ventures, valued according to the equity method;
- taxes;
- the income result deriving from the sale of capital goods and business units (discontinued operations);
- operating profit or loss;
- the individual costs and revenues recorded directly under equity, classified by nature;
- relevant portion of the costs/revenues recorded under equity, related to associated companies and joint ventures whose equity investments are valued according to the equity method;
- total comprehensive income

Therefore, the IAS 1 leaves company management entirely free to include in the statement individual items depending on the significance of these items as information within the corporate management framework. Extraordinary areas may not be highlighted, as the typical components of such areas, i.e. capital gains/losses from the sale of capital goods, are recorded in a specific entry, as required under IFRS 5. Even if it is not mandatory, it is strongly recommended that the detailed costs relating to the Profit and Loss section be included in the comprehensive income statement. With regard to the classification of costs, again there are no prescriptions imposed by the Board, and therefore costs can be structured either by nature or by function (IAS 1 pr. 88: “An entity shall present an analysis of expenses using a classification based on either their nature or their function within the entity, whichever provides information that is reliable and more relevant”). Once again the choice is left to the entity preparing the financial statements, which is allowed to choose between two different statements¹⁴, as shown below, even though the choice of the classification by function

¹⁴ There is the possibility of choosing between two different statements, both well known in the area of business and financial analysis: income statement at achieved production value and IS at sold production value.

requires the company to include in the Notes the classification by nature as well, and particularly the costs of personnel and depreciation:

PROFIT AND LOSS (Classification by nature)		PROFIT AND LOSS (Classification by function)	
Sales revenues		Sales revenues	
+ Other revenues		- Industrial cost of sales	
+ changes in inventories and work in progress		= Gross Operating Margin	
- Consumption of materials		- Sales cost	
- Cost of personnel		- Administrative costs and overhead	
- Amortization, depreciation and impairments		+ Other revenues	
- Other costs		- Other costs	
Profit (loss) for the period		Profit (loss) for the period	

Table 3: Classification by Nature and Classification by Function.

The possibility of recording the Other Comprehensive Income (OCI) in a specific statement emphasizes the importance attributed by the IASB to the costs and revenues recorded directly under equity: this is clearly consistent with the balance sheet-based approach in the IFRS, according to which equity increases or decreases are the consequence of individual valuation transactions, rather than the synthetic expression of the operating result. These entries are mainly the direct consequence of the application of the fair value criterion and of the minor importance attributed by the IASB to the prudence principle.

Another significant aspect for the purpose of the representation of the actual corporate performance in the IAS-compliant income statement is the reporting of intermediate results, such as EBIT, EBITDA, etc., and of the individual management areas (business and financial), which in fact are not dealt with in the accounting principle. Additionally, the revision of IAS 1 has essentially eliminated a requirement that was present in the previous version, i.e. the obligation to indicate the business operating result, so that it is shown separately from the overall operating result. In our opinion, this elimination affects the reliability of the corporate performance disclosure, even though presumably the Board's decision may be explained by the difficulty of defining the exact perimeter of the core operating area. The possibility, or rather the freedom, for the financial statement preparers to determine intermediate balances within the statement¹⁵ is not considered a priority by the IASB, which seems to be primarily interested in determining a single, overall result related to the increase or decrease in equity. The same issue arises when entering the balances of the financial, accessory and tax areas; in particular, for the first two there are no requirements: for example, for the financial area it is not required to indicate the balance but simply the financial income and expenses. As proof of the importance of this issue in the joint project between the IASB and the FASB, segment B is intended to determine the subtotals and totals to be entered in the income statement schedule¹⁶.

Ultimately, therefore, what emerges is the broad "room for maneuver" that the IASB leaves to income statement preparers: the templates proposed in the "Guide to the Application of IAS 1", which as specified is not part of the accounting principle, are not strictly binding. This broad "technical freedom", which is also allowed for the drawing up of the balance

¹⁵ An empirical research study conducted on a sample of Italian listed companies showed that a majority of companies (48%) report only operating income as an intermediate result, while 28% report both the operating income and the EBITDA, 17% gross profit and operating income, 4% no results, and only 2% report gross profit, EBITDA and operating income. It should be noted that the reporting of intermediate results depends on the type of statement adopted: in a statement where costs are classified by function, it is correct to indicate the gross profit along with the operating income, while in a statement where costs are classified by nature, the EBITDA should be indicated (Allegrini M., Ninci E., "Il conto economico secondo lo IAS 1: un'analisi dei bilanci delle società italiane", Amministrazione e Finanza 4/2007, pages 13-20)

¹⁶ Project details will be provided further in this paper.

sheet, could also suggest an additional opportunity for the companies: by choosing certain schedules, they would have the possibility of improving their performance disclosure and increasing the significance of their information to the users. Potential investors¹⁷ would therefore have access to a more extensive representation of the company's financial performance, with the possibility of having full view of the performance thanks to the valuation not only of realized income components, but also of those that have been accrued but not yet realized.

To date, however, this approach has raised strong criticism on the actual comparability of IFRS financial statements (Zeff, 2007; Nobes, 2006; Kvaal and Nobes, 2010¹⁸): the fact that IAS 1 is frequently revised is a sign of the presence of critical issues in terms of accounting harmonization, so much that it could be suggested that one of the basic principles of the framework is not being complied with, namely the principle in paragraph 10 that reads: "... as investors provide risk capital, basing financial statements on their needs will satisfy most of the needs of other users". The IASB's conceptual approach lays particular emphasis on disclosure effectiveness, i.e. on the usefulness of the information included in the Annual Report for the benefit of all stakeholders and of investors in particular. One aspect to be pointed out is the pragmatic/utilitarian usefulness of the financial statement disclosures, in order to allow users to make financial decisions. The annual report, and the income statement in particular, should therefore present the operating results by providing external users with a sort of "report on managerial activities".

Issues related to performance representation according to IAS 1

International empirical research studies¹⁹ have actually demonstrated the high level of heterogeneity of the conducts adopted by the companies in the face of the choice between different options present in many IFRSs, resulting in diverse policy choices at the European level, despite the widespread application of a common set of accounting principles (the IAS/IFRS).

In order to propose improvements to the issues described above, the IASB has recently (May 2010) issued an Exposure Draft "*Presentation of Items of Other Comprehensive Income*". In particular, the Board examines: 1) the difficulties relating to the recording of items in the OCI section, since the Board has not defined the characteristics that differentiate OCI from other income components; 2) the need to remove the option concerning the submission of two documents, and the introduction of the requirement to submit a single report, as the FASB has done since 2007. Specifically, regarding the first problem, paragraph B15 reads: "The Board acknowledges that it has not set out a conceptual basis for how it determines whether an item should be presented in OCI. It also agrees with respondents that OCI items can have qualities that differ from each other"; subsequently, it reiterates the importance of the traditional income statement and of indicating the net profit or net loss in the Annual Report:

¹⁷ It would be advisable for investors to be more involved in the IAS/IFRS formation process: so far, this category of stakeholders, considered "privileged" by the IASB, has actually not contributed significantly to the accounting standards formation process. (Bruce R., Spotlight on investor outreach, 18 May, 2010, IASB site.)

¹⁸ Zeff S.A., (2007), Some obstacles to global financial reporting comparability convergence at a high level of quality, *The British Accounting Review*, 39, pages 290-302; Nobes C., (2006) The survival of international differences under IFRS: towards a research agenda, *Accounting and Business Research*, Vol. 36, No. 3, pages 233-245; Kvaal E. and Nobes C., (2010), International differences in IFRS policy choice: a research note, *Accounting and Business Research*, Vol. 40, No. 2, pages 173-187.

¹⁹ Tarca A., (2005) "International convergence of accounting standards: An investigation of the use of IAS options not acceptable under US GAAP" *International Journal of Business Studies*, 13(1): 67-86; Tarca, A. (2004) "International convergence of accounting practices: choosing between IAS and US GAAP", *Journal of International Financial Management and Accounting*, 15(1): 60-91; Aerts W., Tarca A., (2010) Financial performance explanations and institutional settings, *Accounting and Business Research*, Vol. 40, No.5, pp. 421-450.

“The Board has no plan to eliminate profit or loss as a measure of performance. Profit or loss will still be presented clearly and will remain the required starting point for the calculation of earnings per share” (Introduction, page 5).

The presentation of a single document would therefore have the purpose of strengthening the “*transparency*” of the statement and showing an exclusive income statement balance, the “*comprehensive income*”, which – as discussed above – summarizes equity changes not attributable to transactions conducted with the shareholders²⁰. The need to improve comparability is also restated: in the “Benefits and costs” section (page 8) the Board states: “... the main benefits of the proposal are: ...(ii) improving comparability by eliminating options currently in IAS 1” and (on page 23) in paragraph BC 26: “These improvements will also make it easier to compare financial statements prepared in accordance with IFRSs with financial statements prepared in accordance with US GAAP”.

The performance representation framework outlined by the IASB has received many criticisms: a 2007 PWC study (“Performance statement. Coming together to shape the future” December 2007) involving analysts from all over the world demonstrated that the net profit remains the key indicator of corporate performance. In addition, investment professionals interviewed show little support for a ‘one-size-fits-all’ model for the earnings statement. When asked if results should be presented using a common template, just 10% of investors and analysts surveyed say that they should. A meaningful consultation was proposed by the EFRAG with the Discussion Paper entitled: “The Performance Reporting debate. What (if anything) is wrong with the good old income statement?” (2009)²¹. Interestingly, the EFRAG’s draft comment letter on IASB Exposure Draft Presentation of Items of Other Comprehensive Income (ED 2010/5), dated September 2010, contains the following negative comment on the proposed removal of the option for companies to submit two separate documents: “However, EFRAG strongly objects to the IASB’s initiative to proceed with the proposal to present all non-owner changes in equity in a single statement of comprehensive income and to eliminate the option of presenting performance in two statements (i.e., an income statement and a statement of other comprehensive income). We believe that first a proper debate is necessary on fundamental issues related to performance reporting such as (a) the notion of performance and its relationship with business models, (b) the content of performance statement(s), including the principles that underpin comprehensive income, and (c) recycling. These issues are not currently considered by the IASB within its Financial Statements Presentation project. As part of this debate, thorough research should be carried out to determine what information is most important as a basis for meaningful communication to users and what information is needed for an analysis of an entity’s performance. We do not support the proposal to require a single statement of comprehensive income because we believe it would not, in substance, result in any change or improvement to the current financial reporting”. Another comment along the same lines was made by the OIC concerning Italian companies, which mainly opt for the presentation of two different documents: “the majority of entities in Italy, as well as in Europe, have chosen to present performance in two statements, and even if the change would not give rise to additional costs it would always be a change of the current practice;– the users we have talked to do not see the presentation of a single statement as a real improvement to financial statement presentation”.

The point of view of the professionals is in fact a negative one: the absence of a precise, rigorous definition of comprehensive income and of OCI balance does not help management,

20 “All income and expenses that are components of the total non-owner changes in equity should be presented transparently”, ED page 21, Paragraph BC 18.

21 See also EFRAG, European Financial Reporting Advisory Group, Pro-Active Accounting Activities in Europe (PAAinE), Performance Reporting, European Discussion Paper, 2009.

in that it does not give it the possibility of conducting business with the aim to maximize value to the benefit of the shareholders: “The comprehensive income model provides users of financial statements with neither the basic measurement of performance based on cash flows in the period, as provided by Pacioli’s model, nor the forward-looking assessment of future cash flows provided by the economic value model. At best, it falls between two stools. At worst, it actually makes it more difficult for users of financial statements to assess underlying business performance” (Lever, 2004)²²

Along with the need for a clearer definition of the concept of comprehensive income and OCI balance, undoubtedly the balance sheet-based approach to the determination of the operating result may result in a loss of significance of the performance indicators provided in the financial statements. This creates the need to provide, within the income statement, different performance indicators each associated to a specific income configuration defined on the basis of the users’ disclosure needs. In this perspective, it may be advisable to introduce within the statement both the “realized” and the “accrued” income configuration, as resulting from the valuations performed by applying the fair value criterion. On the other hand, this would help to expand the potential use of financial statement data: the realized income calculation would constitute an ideal basis for the determination of distributable dividends, while different equity configurations could be useful to companies operating in industries subject to monitoring. Furthermore, it is important to point out the need to draw up the income statement in a manner that is consistent with the choice of income configurations to be provided to the users, which in turn are the direct consequence of the choice of valuation criteria applied to individual balance sheet items.

Another aspect of the joint project to be considered is the two main changes in the income statement schedule: 1) the requirement to present a single statement of comprehensive income, with items of other comprehensive income presented in a separate section. This statement would include a subtotal of profit or loss or net income and a total of a comprehensive income for the period. Because the statement of comprehensive income would include the same sections and categories used in the other financial statements, it would include more subtotals than are currently presented in an income statement or a statement of comprehensive income. Those additional subtotals will allow for the comparison of effects across the financial statements. For example, users will be able to assess how changes in operating assets and liabilities generate operating income and cash flows. (FPV, pag. Xvi).

As discussed above, the presentation of a higher number of subtotals brings benefits in terms of performance measurement and disclosure. Emphasis is also given to the need to disaggregate the line items only if such a presentation will enhance the usefulness of the information in predicting future cash flows. For example, it is suggested that the income and expenses items should be disaggregated both on the basis of the operating, financing, and investing categories, and subsequently within the different categories also on the basis of their function. If the entity deems it useful for the determination of future cash flows, these same items may also be disaggregated on the basis of their nature. The recording of data that have been “dis-aggregated” as described above may be facilitated by the use of XBRL tagged data, for the reasons provided above.

The issues discussed above concern, as we have seen, the possibility of introducing changes to income statement presentation and the new concept of financial performance that emerges as a result of the adoption of international accounting principles: within this framework, how

²² Lever K., Would Pacioli turn in his grave?, *Accountancy*, 6/2004, pp. 76-77.

should XBRL be applied in drawing up the financial statements, including the income statement? What may be the impact of adopting the IFRS taxonomy? Will there be positive effects in terms of performance disclosure? On the basis of these research questions, certain basic aspects should be preliminarily established.

5. IFRS-compliant financial statements and XBRL language: the role of taxonomy

IAS/IFRS development is indissolubly linked to the adoption of XBRL²³: in 2001 the IASB²⁴ assumed jurisdiction over XBRL (<http://www.iasb.org/xbrl>), i.e. the institutional role required to set up the official IFRS taxonomy. From the very beginning, XBRL played a central and strategic role in the activities of the Board, which deemed it vitally important to define a high-quality taxonomy in order for “the development of IFRSs and the availability of a high quality IFRS Taxonomy based on XBRL standards go hand in hand²⁵”. Thus, taxonomy was developed in parallel with the accounting principles: in fact, the XBRL team operating within the Board agreed to publish the Taxonomy within the same time frame planned for the publication of the Bound Volume, in addition to ensuring its quality through an appropriate development process. To create the taxonomy, it is not enough to simply transfer information from paper (the *Bound Volume*) to an electronic medium (the XBRL format): two key roles play a part in this process, the computer architecture manager and the project manager in charge of defining the accounting characteristics of the taxonomy, who participates in the meetings of the Board’s technical teams responsible for setting up the accounting principles. In summary, several issues arise from the definition of an IFRS taxonomy, of which the following are relevant for the purposes of this work:

1. while it allows a more effective international circulation of economic and financial data, the XBRL language requires the definition of a shared set of accounting principles to use as the source for defining the taxonomic dictionary;
2. on the one hand, the new electronic format is extremely flexible enabling a choice between different financial statement presentation models and accounting record calculation methods; on the other, however, it influences the financial statement presentation form by identifying standard labels to be associated to the different items;
3. while IFRS translation into XBRL language helps to improve disclosure in terms of comparability, it does not play a mere role of “container”, but rather it standardizes the method of transmission of business and financial data.

This would undeniably result in benefits, including greater comparability between financial statements through the use of a standardized encoding system and the possibility of using a huge amount of qualitative and quantitative information that could be very conveniently accessed using tags and links. However, the key issue remains the definition of an adequate,

23 Both IFRSs and XBRL are intended to standardize financial reporting in order to promote transparency and to improve the quality and comparability of business information, therefore the two form a perfect partnership. The IFRS Foundation XBRL Team is responsible for developing and maintaining the XBRL representation of the IFRSs, known as the IFRS Taxonomy. The IFRS Taxonomy is used around the world to facilitate the electronic use and exchange of financial data prepared in accordance with IFRSs. The IFRS Foundation’s XBRL activities include: Taxonomy development- for companies reporting in IFRS, the Foundation publishes tags for each IFRS disclosure. These tags are organized and contained within the IFRS Taxonomy. Support materials- the Foundation produces support materials to facilitate use and understanding of the IFRS Taxonomy. Translations- translations of the IFRS Taxonomy into key languages are provided to support users of IFRSs and the IFRS Taxonomy whose primary language is not English. Global outreach- the Foundation makes a concerted effort to promote the use of XBRL in conjunction with IFRSs around the world. The Foundation also encourages co-operation and communication with users of the IFRS Taxonomy. See www.iasb.org.

24 Please note that the IASC Foundation, as established jurisdiction, was one of the founding members of XBRL International, the non-profit consortium, with the task of developing and promoting the new business and financial language.

25 From the speech given by Gerrit Zalm, Chairman of Trustees, during the 17th XBRL International Conference organized by XBRL International in May 2008, available at <http://www.iasb.org>.

complete, reliable and high-quality taxonomy, without which XBRL, as an open standard, has no reason to exist. The purpose of the taxonomy, conceived as a sort of XBRL “dictionary”, is not only to classify the items by identify the contents as part of a hierarchical structure, but can also “understand” the quantitative relations between data, regulatory references, and representation criteria²⁶.

The matching of taxonomy and actual disclosure present in companies’ annual reports is perhaps the most critical issue with respect to XBRL impact on business and financial reporting. The creation of an instance document “imposes” the association of each accounting item with a single XML tag, which results in a need to harmonize taxonomy with accounting practices (Baldwin, et al., 2006). In the presence of regulations imposing strict financial statement formats, this is not a problem, but such is not the case with the set of IFRS accounting principles, as discussed above. The same problem arises in connection with the translation into XBRL of the narrative parts (“notes”) and of information voluntarily provided in the annual report. This could have negative effects in terms of reduced transparency and comparability, discouraging companies from voluntarily converting business and financial information into XBRL²⁷.

The inadequate fit between taxonomy and common accounting practices²⁸ and the companies’ unwillingness to change their accounting policies lead to two different types of behaviors:

- 1) the use of custom tags²⁹ added to the XBRL taxonomy;
- 2) the use of extensions common to a certain number of companies, generally operating in certain sectors. The first option results in extreme flexibility of the XBRL language: the contents of the disclosure are broad and can be constantly modified due to the open-source structure of XBRL (Arnold et al. 2009; Locke et al., 2007). The second option is present in many jurisdictions: to quote but one, in the US a framework including different components has been developed for the US GAAPs. The

²⁶ Taxonomies may be distinguished on the basis of a hierarchical classification structured according to the so-called three tier approach: 1) GAAPs applicable to all entities; 2) sector-specific principles; 3) firm-specific principles.

²⁷ The IFRS Foundation is establishing a task force to examine detailed XBRL tagging in IFRS (International Financial Reporting Standards) financial statements, and is looking to work directly with preparers from listed companies from different industries and regions. The Foundation has initiated the task force as a follow-up to the pilot initiative that it recently concluded with US-listed foreign companies to produce US-SEC (United States Securities and Exchange Commission)-compliant IFRS financial reports in XBRL format. The objectives of this initiative are: The aim of the task force is for listed companies to produce fully-tagged financial statements using the IFRS Taxonomy. Detailed tagging up to level-4 will be applied to participants’ financial statements, whereby all primary financial statement line items and notes disclosures will be tagged using the IFRS Taxonomy 2011 (which is published at the end of March 2011). The task force will be a means for the Foundation to engage with stakeholders and obtain feedback on the usability of the IFRS Taxonomy for filers and for users of filed XBRL content in the context of detailed note tagging. The IFRS Foundation is seeking participation from preparers of financial statements for listed companies who report in IFRS. Participation from companies operating in all industries and geographical regions is welcome, and it would be particularly useful to have participation by foreign private issuers listed in the United States because of the expected requirement for foreign private issuers reporting in IFRS to submit IFRS XBRL filings from June 2011. Participating companies will: 1) examine major sections within financial statements - such as operating segments, share-based payments, property, plant and equipment, etc - and the corresponding parts of the IFRS Taxonomy that relate to disclosures within those sections, with support and feedback from the IFRS Foundation XBRL Team. 2) Apply IFRS Taxonomy tags to financial statement note disclosures either in Microsoft Excel or Word or directly in XBRL, again with support and feedback from the IFRS Foundation XBRL Team. 3) Generate an XBRL file using their preferred software. For more details see www.iasb.org. available from 21 march 2011.

²⁸ Some interesting empirical studies have been conducted in the following works: evaluation of the fit of the taxonomy developed in 2000 for US commercial and industrial companies, in Bovee M., Ettredge M., Srivastava R.P., Vasarhely M., (2002) “Does the Year 2000 XBRL Taxonomy Accomodate Current Business Financial Reporting Practice?”, *Journal of Information System*, vol. 16, n. 2, fall, pages 165-182; the evaluation of the effectiveness of the IFRS-GP taxonomy, developed for the conversion of IFRS-compliant financial statements, in Bönson E., CortijoV., Escobar T., (2009) “Towards the Global Adoption of XBRL using International Financial Reporting Standards”, *International Journal of Accounting Information Systems*, vol. 10, pages 46-60.

²⁹ We find particularly interesting the possibility of “customizing” contents according to the different categories of stakeholders. “Continuous delivery of customized and standardized external reporting is now possible through enterprise-wide systems, wide-area, high-bandwidth networks, and XML”. (Hunton et al., 2003).

components are organized into different levels: add-on taxonomies, common terms, common relations, and industry relationships, which are basically industry-specific extensions. The different taxonomies are applicable both to listed and unlisted companies; three industry-specific taxonomies are currently recognized: industrial and commercial entities, banking and savings institutions, and insurance companies. (Hoffman C., Homer B., 2005, US GAAP Taxonomy Framework, available at www.xbrl.org). The extensions choice appears to be preferable to the adoption of firm-specific custom tags: on the other hand, the risk exists that an excessive number of taxonomies (a “Tower of Babel” of tags according to Bergeron, 2003) will cause an “anti-standardization” effect, leading to the creation of multiple business/financial dialects (Carpenter, 2003).

In summary, one can largely agree with the following opinion on consistency and comparability: “The use of XBRL tags combined with a clearly defined XBRL taxonomy will reduce terminology issues related to homonyms and synonyms in published financial statements³⁰. A trade-off exists between a comprehensive taxonomy allowing firm specific information and standardization that improves comparison among firms (Wagenhofer, 2003). XBRL facilitates comparability among firms when common taxonomies are used, but when companies create their extension taxonomy, some of that comparability is lost. The use of extensions should decrease over time as the number of sector taxonomies increases (Debreceeny et al., 2005). However XBRL per se does not resolve the inconsistency of measurement allowed by GAAP”. (Baldwin et al., 2006, see Figure 4).

Characteristic	XBRL Improvements/Challenges
Consistency and Comparability	<ul style="list-style-type: none"> • Clarification of inconsistent use of terminology, both homonyms and synonyms • Easier to determine consistency among firms and across time periods • Conversion among different forms of GAAP (e.g., U.S. GAAP versus IAS) easier • Clear mapping of elements
Reliability and Accessibility	<ul style="list-style-type: none"> • Reduction of errors introduced by re-keying information • Sheer complexity of taxonomies may introduce errors in creating or reading data • Less likely to miss needed information • Facilitates automation and use of intelligent agents • Requires additional learning to understand complex taxonomies and extensions
Relevance	<ul style="list-style-type: none"> • Automation facilitates making information available on a more timely basis, increasing the likelihood it will be available when needed • Easier to automatically select information needed • Streamlines sharing of information among disparate technology, thus can use best information rather than what is available in a particular technology
Decision Usefulness	<ul style="list-style-type: none"> • More accessible, clear, consistent, comparable, and reliable information available when needed to make decisions • Even if there is no change in the decision usefulness of information per se, information will be easier to get and use
Transparency	<ul style="list-style-type: none"> • Crisp clear definitions make information easier to understand • Information easier to manipulate and analyze • Extra layer of software needed for creation and interpretation of information

Figure 4: Quality of information (Baldwin et al., 2006)

The other possibility available to companies is that of modifying XBRL encoded information: clearly, this is only possible if the information is provided voluntarily, although it is particularly interesting to observe, also for mandatory disclosures, the choices adopted by companies in the presence of different alternatives, the so-called options that are frequently found in IFRS principles. The consequence could be a worsening – in both quantitative and

³⁰ Problems encountered in automatically processing untagged financial information are well documented by FRAANK system. See Bovee et al. 2005.

qualitative terms – of the disclosure, as companies might prefer to reduce the degree of detail of the disclosure (Bovee et al. 2002). Another issue is the adjustment of the disclosure contents to the taxonomy’s hierarchical relations, which could result in problems for the users in terms of reprocessing the data through software able to detect certain encoded data only.

The IFRS Taxonomy 2011 and Exposure Draft IFRS Taxonomy interim release (June 2011)

One of the latest initiatives involving these aspects is “IFRS Foundation[’s initiative] to enhance IFRS Taxonomy to reflect common reporting practice (08 April 2011). The IFRS Foundation today announced that it will publish supplementary tags for the IFRS (International Financial Reporting Standards) Taxonomy that reflect disclosures that are commonly reported by entities in their IFRS financial statements. By publishing these supplementary tags, the IFRS Foundation is taking a first step in providing additional elements as part of its XBRL (eXtensible Business Reporting Language) taxonomy that reflect common reporting practice across the world and across industries. The publication of these common-practice tags will enable entities to create IFRS financial statements in XBRL with fewer entity-specific taxonomy tags, thereby enhancing the comparability of information. The common-practice tags are being developed through the analysis of over 200 financial statements – i.e. line items from Statements of Financial Position, Comprehensive Income, Cash Flows and Changes in Equity, and block-tagged notes and accounting policies - that have been prepared in accordance with IFRSs by entities from a broad range of geographical areas and industries, including financial institutions and insurance companies³¹. These tags will be published over the coming weeks as a draft supplement (i.e. as an interim release) to the IFRS Taxonomy 2011. These tags will be subject to the same due process that is applied to the development of the core IFRS Taxonomy and they will consequently be published for public review and consultation. These initial common-practice tags will be the first part of a process that the IFRS Foundation plans to undertake in order to enhance the usability of the IFRS Taxonomy by reflecting common reporting practice. The next part of the process will involve examining financial statement note disclosures in detail and identifying common reporting practice in these note disclosures”.

This release confirms what we stated above, i.e. that the Board considers it essential to investigate companies’ disclosure behaviors in order to include these common practices in the line items of financial statements and notes, using text blocks, so as to reduce entity-specific concepts in the creation of XBRL financial statement, and therefore to increase disclosure comparability. The goal of the IFRS Foundation is the limitation of custom tags and extensions, which, as discussed above, reduce the disclosure comparability. This initiative is also aimed at increasing the “usability” of IFRS taxonomy³². (see page 4 ED Interim Release). From the analysis of 200 IFRS financial statements, research is carried out through a series of pre-determined steps, as follows:

- established a sample population of IFRS financial statements that represents a broad range of geographical areas and industries;
- mapped individual line items reported in the primary financial statements and block-tagged notes and accounting policies to the IFRS Taxonomy 2011;
- grouped line items that are alike and recorded the number of times they were reported. If the number of occurrences was significant and a concept did not previously exist in

³¹ Sample of population is accurately explained by the Board: see ED Interim Release page 5.

³² The IFRS taxonomy is usable throughout the financial reporting supply chain in all scenarios and geographic regions where IFRS are implemented, thereby improving market transparency, supporting better analysis and reducing reporting burdens. www.xbrl.org.

the IFRS Taxonomy, the concept was deemed to be a candidate common-practice concept;

- developed a list of candidate common-practice concepts;
- reviewed the candidate common-practice concepts with members and staff of the IASB in order to ensure that the candidate common-practice concepts do not generate conflicts with IFRSs; and
- released a draft set of candidate common-practice concepts to the XBRL Quality Review Team⁵ for the period of 14 days and obtained 48 comments, which were analysed and addressed.

Nonetheless the IFRS Foundation invites comments, which may be submitted by 2 August 2011, on each of the candidate common-practice concepts on the basis of the following:

- (a) The concept does not conflict with IFRSs.
- (b) The concept is labeled clearly and appropriately.
- (c) The concept is located in an appropriate and logical location within the IFRS Taxonomy.
- (d) From the experience of the reviewer, the concept is regarded as a global, common practice.

For the purposes of our review, it is interesting to analyze Appendix A, containing a list of “Candidate common practice concepts” proposed in the IFRS Taxonomy interim release.

The part of the Common Practice Concepts contained in the “Income Statement” and “Other Comprehensive Income” sections is of interest to us (IFRS Taxonomy 2011 interim release, page 10, 11). As this contribution refers to industrial companies, the considerations below apply to concepts related to the “sample population of 145 financial statements from commerce and industry entities”. In the Income Statement section, the most frequent concept (53 out of 145) is the item Finance income (cost), followed by Sales and marketing expenses (32 out of 145), while in the OCI section the most frequent concepts are number 4: “Other individually immaterial components of other comprehensive income, net of tax, number 5: Other individually immaterial components of other comprehensive income, before tax, and number 6: Income tax relating to other individually immaterial components of other comprehensive income.

The IFRS Foundation’s initiative is definitely interesting, but let us now see what the current taxonomy establishes for Income Statement and OCI schedules, and what changes have been introduced from the 2010 Taxonomy.

On 25 March 2011, the IFRS Foundation published the IFRS 2011 Taxonomy, which had been proposed in January of the same year, defined on the basis of IFRS accounting principles issued at 1 January 2011. For income statement presentation, the Foundation offers the possibility of choosing between four different statements: “Income Statement, by function of expense”; “Income Statement, by nature of expense”; “Statement of Comprehensive Income, OCI components presented net of tax”; “Statement of Comprehensive Income, OCI components presented before of tax”³³.

In addition, the IFRS Foundation XBRL team considered whether concepts should be provided for “Basic and diluted earnings (loss) per share”, “Basic and diluted earnings (loss) per share from continuing operations” and “Basic and diluted earnings (loss) per share from discontinued operations”. Although it could be understood that the disclosure requirement of IAS 33.67 allows for reporting of only “Basic earnings (loss) per share” if equal to “Diluted

³³ The differences between 2010 taxonomy and 2011 taxonomy are reported in "ver_2011-04-07_ifrs_full_2010-ifrs_full_2011", available at www.iasb.org.

earnings (loss) per share”, a number of entities have used a combined line. As this approach does not conflict with IAS 33.67, the candidate common-practice concept was proposed.

In summary, the accounting issues emerging for the purpose of improving performance measurement and its disclosure in the financial statements are as follows:

- 1) choice of income statement schedule;
- 2) choice of cost classification criterion;
- 3) reporting of intermediate results, in particular – if applicable - EBITDA calculation method (there may be a current EBITDA or a “straight” EBITDA, the difference being due to the presence of non-recurring income and charges;
- 4) inclusion of the financial area and accessory area balances;
- 5) inclusion (below the income statement or in the notes) of the following indexes: income per share and distributed dividend per share (these may also be indicated in the statement of changes in shareholders’ equity);
- 6) indication of the operating result from discontinued operations.

6. Discussion Paper Preliminary View of Financial Statement Presentation October 2008

Lastly, it is worthwhile to discuss briefly the recent developments in the IASB-FASB joint project, making reference to the Discussion Paper issued by the Board in October 2008, on the basis of which a draft was issued (Staff draft of Exposure Draft IFRS X Financial Statement Presentation, July 2010) that could provide a reference basis for a further revision of IAS 1 (see Figure 6 and 7).

Stage 1: Setting the agenda

In September 2001 the Board added to its agenda the performance reporting project (in March 2006 renamed the ‘financial statement presentation project’). The objective of the project was to enhance the usefulness of information presented in the income statement. The Board developed a possible new model for reporting income and expenses and conducted preliminary testing. Similarly, in the United States, the Financial Accounting Standards Board (FASB) added a project on performance reporting to its agenda in October 2001, developed its model and conducted preliminary testing. Constituents raised concerns about both models and about the fact that they were different. In April 2004 the Board and the FASB decided to work on financial statement presentation as a joint project to further the goal of promoting convergence of accounting standards used internationally. They agreed that the project should address presentation and display not only in the income statement, but also in the other statements that, together with the income statement, would constitute a complete set of financial statements—the balance sheet, the statement of changes in equity and the cash flow statement (statements have been renamed as a part of the project and the scope of income statement expanded).

Stage 2: Project Planning

The project is being conducted jointly with the FASB in three phases:

Phase A - addresses what constitutes a complete set of financial statements and requirements to present comparative information. The IASB and FASB completed deliberations on this Phase.

Phase B - (current phase). This phase focuses on the fundamental issues for presentation and display of information in the financial statements. The Boards developed three objectives for financial statement presentation based on the objectives of financial reporting and the input the Boards received from users of financial statements and from members of their advisory groups.

Phase C - which has not yet begun, will address presentation and display of interim financial information in US GAAP. The IASB may reconsider the requirements in IAS 34, Interim Financial Reporting.

Stage 3: Development and publication of a discussion paper

Phase A

A discussion paper is not a mandatory step in the IASB Due Process Handbook. A discussion paper was not considered necessary for this phase because the Board’s objective was not to reconsider all the requirements of IAS 1.

Phase B

On October 16, 2008, both Boards published for public comment a discussion paper, Preliminary Views on Financial Statement Presentation. The FASB discussion paper and the IASB discussion paper are the same except for differences in style/format. The comment period ends on April 14, 2009.

As a first step to developing that paper, in March 2006 the Board agreed to working principles for Phase B of the project which focus on the fundamental issues for presentation and display of information in the financial statements.

In brief, the objectives of financial statement presentation state that the financial statements should:

- (a) portray a cohesive financial picture of an entity’s activities;*
- (b) disaggregates information so that it is useful in predicting an entity’s future cash flows;*
- (c) help users assess an entity’s liquidity and financial flexibility.*

Since March 2006 the Board discussed the application of those objectives at Board meetings. The output of these discussions is included in the discussion paper.

Stage 4: Development and publication of an exposure draft

Phase A
 On March 16, 2006, as a result of its work in phase A, the Board issued an Exposure Draft of Proposed Amendments to IAS 1 Presentation of Financial Statements: A Revised Presentation. The comment period for the exposure draft ended on July 17, 2006. The FASB decided that it would not publish a separate Exposure Draft on Phase A of the project. Rather, it will expose its Phase A decisions along with its Phase B decisions.

Phase B
 An Exposure Draft will be developed after the comment period for the discussion paper ends. During the 6-month comment period on the Discussion Paper a number of entities will participate in a field test. Participating entities will recast, to the extent that it is practical, two years of financial statements using the Boards' preliminary views on financial statement presentation. In addition, the Financial Accounting Standards Research Initiative (FASRI) will study investor use of financial statements prepared using the proposed presentation model by conducting a series of controlled tests. The Boards hope to learn about the costs and benefits of the proposed presentation model through that field test, FASRI's study, the comment letters they receive on the October 2008 Discussion Paper, and discussions with interested parties during the comment period. They will consider all of that input when they redeliberate the issues addressed in this Discussion Paper during the next stage of Phase B, which will lead to publication of an exposure draft of a proposed standard.

Stage 5: Development and publication of an IFRS
Phase A
 IAS 1 Presentation of financial statements was published in early September 2007.

Phase B
 This stage has not been initiated for Phase B.

Stage 6: Procedures after an IFRS is issued
Phase A, the IASB may consider holding meetings with interested parties (standard setters, SAC, IFRIC, other constituents) to help understand issues related to the practical implementation and impact of IAS 1 (revised 2007).

Phase B this step has not been initiated.

Figure 6: Financial Statement presentation project

The project's main proposals are:

- 1) cohesive financial statements that share a common structure, separately presenting operating, investing and financing activities as well as income tax and discontinued operations;
- 2) disaggregation in each financial statement, considering its function, nature and measurement basis, with some disaggregation included in the notes;
- 3) more disaggregation of operating cash receipts and payments, and reconciliation of profit or loss from operating activities to cash flows from operating activities;
- 4) analyses of changes in asset and liability line items (including net debt – IASB only);
- 5) and disclosure of remeasurement information



Figure 7: Financial Statement presentation project

The proposals would improve the comparability and understandability of information presented in financial statements, by imposing some degree of standardization in the way that information is presented in the financial statements, particularly regarding how information is classified, and the degree to which it is disaggregated.

In particular, we will focus on proposals 1, 2 and 5. In the last few years, the prevalent direction followed by international standard setters has been to increase the decision relevance of financial disclosures. However, both the IASB and the FASB have remained firm in the belief that the financial statements play a crucial role in informing users: “How an entity presents information in its financial statements is vitally important because financial statements are a central feature of financial reporting – a principal means of communicating financial information to those outside an entity”.

Two basic issues are highlighted: 1) the presence of too many alternatives allowed in presenting the financial statements; 2) the information is presented in excessively aggregated form and inconsistently, so that it is not possible to understand the connection between the financial statements and the company's results or financial performance.

The DP has two key purposes, described in the section entitled “Core principles of financial statement presentation” (page 12 ff. of the Staff draft):

- 1) **Portray a cohesive financial picture of an entity’s.** A cohesive financial picture means that the relationships between items across financial statements is clear and that an entity’s financial statement complement each other as much as possible.
- 2) **Disaggregate information so that it is useful in predicting an entity’s future cash flows.** Financial statement analysis aimed at objectives such as assessing the amount timing, and uncertainty of future cash flows require financial information that is disaggregated into reasonably homogenous groups of items. If items differ economically, users may wish to take into account differently in predictive future cash flows.

The two fundamental principles that are proposed are: 1) cohesiveness; 2) disaggregation; the strong complementarity between the two principles is emphasized: “The disaggregation and cohesiveness principles work together to enhance the understandability of an entity’s financial presentation”.

Financial statement presentation must be centered on the methods according to which the value creation process occurs within the company, and therefore the information concerning business activities must be separate from the information through which the company finds financing sources to conduct business (financing activities). This is useful in that the information “about non-owner sources of finance (and related changes) should be presented separately from owner sources of finance (and related changes)³⁴”. Similarly, the need is pointed out to record information on “continued operations” separately. The proposed classification table for the three main statements in the annual report³⁵ is shown below; as can be seen, the triple distinction appears to be strictly complementary.

Statement of Financial Position	Statement of Comprehensive Income	Statement of Cash Flows
<i>Business</i> <ul style="list-style-type: none"> • Operating assets and liabilities • Investing assets and liabilities 	<i>Business</i> <ul style="list-style-type: none"> • Operating income and expenses • Investment income and expenses 	<i>Business</i> <ul style="list-style-type: none"> • Operating cash flows • Investing cash flows
<i>Financing</i> <ul style="list-style-type: none"> • Financing assets • Financing liabilities 	<i>Financing</i> <ul style="list-style-type: none"> • Financing asset income • Financing liability expenses 	<i>Financing</i> <ul style="list-style-type: none"> • Financing asset cash flows • Financing liability cash flows
<i>Income taxes</i>	<i>Income taxes</i> on continuing operations (business and financing)	<i>Income taxes</i>
<i>Discontinued operations</i>	<i>Discontinued operations</i> , net of tax	<i>Discontinued operations</i>
	<i>Other comprehensive income</i> , net of tax	
<i>Equity</i>		<i>Equity</i>

Table 6: Classification Table.

³⁴ PVF Document, reduced, page xiv.

³⁵ The statements are: Statement of Financial Position, Statement of Comprehensive Income, Statement of Cash Flow. The statement of changes in equity, mandatorily required under the IFRS, “is not included in this table because it would not include the sections and categories used in the other financial statements”. PVF Document, reduced, page xiv.

The rules proposed by the Board (“*Classification guidance*”) to prepare these statements require a sort of “parallelism” on how to enter the accounting records in the three statements: the choice made by the company on where to record the assets and liabilities into the sections and the categories of the Statement of Financial Position reflects on the entry of accounting records in the other two statements, the statement of comprehensive income and cash flows. The statements below appear to be relevant in that the Board expresses the intention to apply to the Financial Statement Presentation Guidelines the so-called Management Approach, already present in IFRS 8 “Operating segment”, effective as of 2009, replacing the previous principle, IAS 14³⁶. “Classification should be consistent with how the asset or liability is used within an entity and the way an entity views its activities; an entity with more than one reportable segment should classify items according to how they are used in its reportable segments. This approach should allow management to communicate the unique aspects of its business(es) to users of its financial statements. The classification decision would reside with management and its classification rationale would be presented in the notes to Financial Statements as part of the accounting policy discussion. The Boards support a management approach to classification rather than a prescriptive approach because they believe it will result in financial statements that reflect how management views and manages the entity and its resources”.

Therefore, this perspective allows the representation of data in the financial statements “through the eyes of management”, enabling users to “read” the corporate reality from an internal point of view, as if they were assuming the functions of the management itself. This reasoning makes realistic the third key concept set forth in the Jenkin’s Committee Report: 1) Explain the nature of a company’s businesses, including the linkage between events and activities and the financial impact on company of those events and activities; 2) Provide a forward-looking perspective; 3) Provide management’s perspective.

In effect, the Committee had put into practice the users’ wish to perceive the company’s business through the principles, values and culture of the managers who operate within the company. From the point of view of the users, being informed of the measurements and indicators built for the senior management facilitates their understanding of future strategies and helps to estimate the actual value of the company.

From the point of view of data presentation methods, the primary purpose is the cohesiveness principle that must characterize the financial statements, and XBRL is more than a means of communicating information, it is also a powerful tool for presenting it (Alles, Piechocki, 2010, page 7). In fact, the Boards request as follows: to present a cohesive set of financial statements, an entity should align the line items, their descriptions, and the order of presentation of information in the statements of financial position, comprehensive income, and cash flows. To the extent that it is practical, an entity should disaggregate, label, and total individual items similarly in each statement. Doing so should present a cohesive relationship at the line level among individual assets, liabilities, income, expense, and cash flow items” (page xv).

The benefits of adopting XBRL for the measurement and representation of the company's performance

No mention of XBRL is found in the IASB-FASB joint project: nonetheless, the proposed innovations – i.e. the need to present data in a “cohesive” manner and at the same time to

³⁶ The adoption of this approach is one of the major differences compared to the previous IAS 14 principle. The US adopted this approach back in 1997, when the Statement SFAS 131 was issued.

“disaggregate” the information – could find considerable benefits in XBRL. “XBRL tagged data enables users to see financial data in multiple different formats and using multiple different assumptions, consistent with a bottom up demand-pull vision of financial reporting” (Alles, Piechocki, 2010, pag. 8). The main difficulty is the excessive importance attributed to compliance with certain models of financial statements and notes. It is stated, therefore, that one of the decisive shifts in this perspective, in the case of XBRL tagged data, will be the shift from document-centric taxonomies to data-centric taxonomies.

The joint project (DP and ED) focuses on interesting aspects that should help to strengthen the “multidimensional modeling” of financial information. To this effect, for example, the income statement currently envisaged in the IFRS taxonomy may be modified (Alles, Piechocki, 2010, pages 11 and 12), as shown in Figure 7.

Figure 8 presents line items from the XBRL IFRS taxonomy income statement (a similar model approach can be found in the vast majority of XBRL taxonomies) The distinction between continuing and discontinued operations is provided on a line item level, for example, Profit (loss) from discontinued operations is a different line item from Profit (loss) from continuing operations and both as distinct from the aggregate Profit (loss) line item.

The same income statement could be modeled by the means of axes thus leading to a more consistent and logical multidimensional data model. The ownership (the categorization into line items attributable to owners of parent or non-controlling interest or aggregate ownership) as well as the distinction into line items referring to continuing and discontinued operations can be modeled by means of axes thus creating a model presented in Figure 8.

While not directly required by IFRS, the Revenue line item can logically also be reported as Revenue from Discontinued operations and Attributable to owner of parent. In practice a number of financial statements provide such financial information although the current IFRS taxonomy does not directly foresee such a possibility.

Income statement		
Profit (loss)		
Revenue		
Cost of sales		
Gross profit		
Other income		
Distribution costs		
Administrative expense		
Other expense		
Other gains (losses)		
Finance income		
Finance costs		
Share of profit (loss) of associates and joint ventures accounted for using equity method		
Profit (loss) before tax		
Income tax expense		
Profit (loss) from continuing operations		
Profit (loss) from discontinued operations		
Profit (loss)		
Profit (loss), attributable to		
Profit (loss), attributable to owners of parent		
Profit (loss), attributable to non-controlling interests		
Earnings per share		
Basic earnings per share		
Basic earnings (loss) per share from continuing operations		
Basic earnings (loss) per share from discontinued operations		
Basic earnings (loss) per share		
Diluted earnings per share		
Diluted earnings (loss) per share from continuing operations		
Diluted earnings (loss) per share from discontinued operations		
Diluted earnings (loss) per share		

Figure 7: Income Statement model in XBRL IFRS Taxonomy.

Multidimensional modeling may also be applied to the statement of financial position (Alles, Piechocki, 2010, pages 13 and 14), where in the current taxonomy the individual values are recorded partly on a current and partly on a non-current basis, while a distinction between operating, financing and investing, and aggregate activities may also be recorded, and these in turn may be entered as partly current and partly non current, as shown in Alles, Piechocki, 2010, figure 7 (page 14).

Additionally, multidimensional modeling by the means of XBRL increases the analytical capabilities especially for selecting (slicing and dicing) appropriate data and viewing them in appropriate way. For analysis of the Revenue, Cost of sales and Other income, and their classification into “Attributable to owners of parent” or “Attributable to non-controlling interest or for all aggregate ownership operations, a simple operation on the multidimensional data model can be conducted leading to the result presented in Alles, Piechocki, 2010, fig. 8, page 15.

	Aggregate ownership					
	Attributable to owners of parent				Attributable to non-controlling interest	
	Aggregate continuing and discontinued operations		Aggregate continuing and discontinued operations		Aggregate continuing and discontinued operations	
	Continuing operations	Discontinued operations	Continuing operations	Discontinued operations	Continuing operations	Discontinued operations
Income statement						
Profit (loss)						
Revenue						
Cost of sales						
Gross profit						
Other income						
Distribution costs						
Administrative expense						
Other expense, by function						
Other gains (losses)						
Finance income						
Finance costs						
Share of profit (loss) of associates and joint ventures accounted for using equity method						
Profit (loss) before tax						
Income tax expense						
Profit (loss)						
Earnings per share						
Basic earnings (loss) per share						
Diluted earnings (loss) per share						

Figure 8: Modeling of Income Statement by the means of axes

As it may be noted, the use of the XBRL technology and the introduction of the axes suggested in the Presentation of Financial Statements Project of the IASB and FASB bring about a significant change: the presentation itself become less relevant with the enhanced analytical capabilities playing the predominant role.

This reminds us of Hoffmann’s definition of the XBRL specification (1998): “XBRL is the specification of the eXtensible Business Reporting Language (which) allows software vendors, programmers, (and) intermediaries in the preparation and distribution process and end users who adopt it as a specification to enhance the creation, exchange, and comparison of business reporting information”. This significant statement underlies all XBRL specifications. It shows that the orientation of the XBRL Consortium is towards enabling XBRL for use in the financial information value chain. Willis and Hannon (2005) state that to achieve this goal XBRL provides a common standardized format that enables applications to seamlessly share and process data.

The taxonomies reflect the existing accounting standards (IASCF, 2008) and/or reporting best practices (XBRL US, 2008).

The process of taxonomy development encompasses the creation of a data model on the basis of accounting standard (or other sources of information) and instantiating of the data model by the means of XBRL specifications. In the case of the IFRS taxonomy the underlying legal source are the IFRSs. XBRL has evolved from a simple transmission protocol for financial information into a comprehensive set of technologies which supports data modeling (and more importantly, multidimensional data modeling with XBRL Dimensions), financial data querying and setting of business rules (XBRL formulas) and also the visualizations of business information (Inline XBRL and XBRL rendering).

The evolution of XBRL technology was not followed by a similar development in the accounting standard issuing process: we still find a strong bias towards document-oriented financial reporting, since considerable importance is attributed to the distinction between statements and notes. “While such an approach is based on tradition for accountants it is not the optimal approach for IT and data modeling experts or for data analysts. The latter have moved towards a more analytical view of business information which leads to

multidimensional modeling with possibilities to **slice, dice, pivot or rotate multidimensional data**. XBRL has recently attempted to bridge this gap by offering multidimensional modeling of accounting standards (Alles, Piechocki, 2010, pag. 15).

Although it is used in IFRS and US GAAP taxonomies, the multidimensional approach has broader use possibilities, as for example in the case of COREP and FINREP³⁷ taxonomies. The introduction of the dimensional specification leads to a fundamental shift towards "more data-centric" and "less document-centric" taxonomies. This aspect also emerges from a comparison between IFRS and US GAAP taxonomy: the former follows a balanced approach between data and document orientation, for example, by using concept per cell in the tables for the movements in property, plant and equipment while disclosure of operating segments is expressed by the means of dimensions. By contrast, the US GAAP taxonomy introduces dimensions for a significant number of schedules which reduces the number of concepts in the taxonomy as well as better reflecting the relationships among the concepts.

This makes the multidimensional approach of the US GAAP taxonomy more similar to that of the FINREP and COREP taxonomies. For example, the architecture used to design the table structures of the IFRS taxonomy does not use XBRL dimensions; the use of multidimensional entities is limited to the modeling of certain reports at the instance level (e.g. breakdown by geographical areas). COREP, in particular, is a highly dimensional taxonomy utilizing up to seven dimensions (axes) in one hypercube (by comparison, the IFRS and the US GAAP taxonomies, usually provide only one dimension for a given measure – for example, Revenue reported for breakdown of Geographical area).

Another aspect that emerges from the joint project is the possibility of both Statement of financial position data and, consequently, Income Statement data in such a way as to identify the three types of activities: operating, financing and investing. "The presentation of assets and liabilities in the business and financing sections will clearly communicate the net assets that management uses in its business and financing activities. That change in presentation coupled with the separation of business and financing activities in the statements of comprehensive income and cash flows should make it easier for users to calculate some key financial ratios for an entity's business activities or financing activities.

This facilitates the calculation of certain indexes: this is another aspect that highlights the remarkable use potential of XBRL. The possibility of accessing "tagged in depth" XBRL data is essential and, together with the proposal to modify financial statements as discussed above, represents a basic opportunity for stakeholders – specifically, it leads to strong simplification in the performance of business analyses. The real power of XBRL is *democratization* of financial data, giving the user rather than the firm, or the regulator, control over how data is presented and perceived. (...) Of course, the firm and the regulators would still determine what information is publicly released, but when that data is XBRL tagged the user obtains the ability to slice and dice that data as they choose and not be constrained to view the data in only the way the firm chooses to display it. Such a capabilities already exists if the users is willing to rekey in the data in public financial statements into their own data analysis system, but that entails high cost and can only be undertaken by such professionals as analysts, or those with the resources to purchase reformatted data from data intermediaries. With XBRL tagging anyone can examine data in any way they choose at very low cost, which is why we argue that XBRL will increase access to financial data and so "democratize" it. Another aspect is the possibility to "liberate the substance of financial data from its form", avoiding

37 The Committee of European Banking Supervisors (CEBS) models the taxonomies for Common Reporting (COREP) and Financial Reporting (FINREP). While COREP reflects the Basel II regulations for reporting of solvency ratio and is stand-alone taxonomy, FINREP reflects the financial reporting of financial institutions based on IFRS and is extension of IFRS taxonomy. These are the first multi-dimensional taxonomies, i.e. taxonomies compliant with XBRL . Dimensions 1.0 specifications, and were developed in 2006. Since then, XBRL Dimensions have received growing attention from international XBRL experts. Many taxonomies intend to adopt this module during their periodical revision process.

any conditioning linked to the way in which data are presented in the financial statements. This is authoritatively confirmed by Mike Willis of PWC and Founding Chairman of XBRL International, in whose words: “XBRL-enabled democratization of financial markets will provide enhanced analytical, presentation and referential insights that are developed by consumers collaborating with standardized disclosure, analytical and referential concepts in public and/or proprietary social networks in a manner similar to the current mediums such as Facebook or Wikipedia³⁸”.

Another problem is related to the need to obtain data in real time: as an example, we could quote empirical research studies conducted by scientists using data obtained very late and with few possibilities of providing information that will help the managers' decision making process. The use of XBRL tagged data and real-time reporting may enable managers to carry out the same analyses that are generally conducted by third party aggregators. “XBRL thus enables analysts, auditors and boards of directors to replicate an academic analysis for their firms more easily, in time to be actionable”. (Alles, Piechocki, 2010, page 10)

With specific reference to profitability indexes, the calculation of adequate financial ratios may improve corporate performance measurement, with beneficial effects in terms of improvement of the governance decision-making process, which represents the last step in the information value chain (Elliot, 1998).

Corporate performance measurement using GAAP measures and NON-GAAP measures in the narrative report

In recent years, the calculation³⁹ and disclosure of financial ratios in the annual report has become particularly significant, so much that companies report these data in the notes, if this is required by accounting regulations, but also in other statements provided voluntarily. An example of this is the Earnings per Share ratio required under IAS 33, but other ratios are also calculated and provided in the report, including the Management Commentary or the Management & Discussion Analysis. These are mainly narrative reports a part of which, however, is dedicated to the calculation of and comments to indicators that can be derived directly from financial statement data, or constitute reformulations of such data. Reference is made separately to GAAP measures and non-GAAP measures.

For example, Italian accounting regulations (Legislative Decree no. 32/2007) has imposed substantial changes to the statutory “Report on Operations” with respect to information of a financial nature. For a true, well-balanced and exhaustive analysis of the company's situation in a current and forward-looking perspective, the use of financial and non-financial indicators is recommended. In order to verify the typical performance levels of an analysis of the business situation, certain ratios are commonly used, including ROE, ROI, ROS, ROA, EBITDA, EBIT, and OF incidence. The identification of these indicators requires a reclassification of the financial statements. If these ratios are calculated by IFRS adopters, information will be required on the statement presentation criteria (e.g. use of the financial or managerial criterion, ratio calculation method, meaning to be attributed to the value of the

38 Comments made at the academic track of the 19th XBRL International Conference in Paris, June, 2009.

39 Several empirical studies have been conducted on IFRS-compliant financial statements, showing that adoption of the IFRSs has affected ratio calculation. According to Lantto, Sahlstrom, 2009, these changes may be attributed to “increasing profitability ratio and decreasing PE ratio. These changes can be explained by increases in the income statement profits”. These results seem to confirm (Jones and Higgins, 2006) that “the removal of the amortization of purchased goodwill under IFRS 3 is the most important reason for a considerable increase in profitability ratios. (...) In summary, the adoption of fair value accounting rules and stricter requirements concerning certain accounting issues are the reasons for the changes observed in accounting figures and financial ratios”. Another empirical study highlighted that it is not possible to establish whether application of the IFRSs to SMEs has positively affected performance measurement. For more details see also Iatridis G., IFRS Adoption and Financial Statement Effects: The UK Case, International Research Journal of Finance and Economics - Issue 38 (2010), pp. 165-172.

ratios). As regards alternative performance indicators (e.g. the “Net financial position” ratio, required by Consob), disclosure requirements are higher, as the criteria adopted for their calculation and the tables of reconciliation with the financial statements must be described. The reason of this is that an alternative performance indicator differs from a conventional indicator in that it cannot be inferred directly from the financial statements, and it is generally represented by items like: operating earnings, cash earnings, earnings before one time charges, earnings before interest, taxes, depreciation and amortization (EBITDA). The CESR (Committee of European Securities Regulators) recommends indicating the reasons for calculating these indicators; such reasons should be related to the relevance and understandability of the disclosures.

IFRS Practice Statement. Management Commentary: information about the entity’s performance.

In IFRS standards, these indicators are present both in the Notes and in the Management Commentary. As regards the latter (*IFRS Practice Statement Management Commentary A framework for presentation. December 2010*), a more in-depth analysis is required. This document does not represent an independent accounting principle, “consequently entities applying IFRSs are not required to comply with the Practice Statement, unless specifically required by their jurisdiction (page 5). The objective of the Practice Statement is to assist management in presenting useful management commentary that relates to financial statements IFRS compliant (page 7). Management commentary is a narrative report that provides a context within to interpret the financial position, financial performance and cash flows of an entity (page 5).

The principles underlying the management commentary as indicated by the Board are the following:

- to provide management’s view of the entity’s performance, position and progress;
- to supplement and complement information presented in the financial statements

Particularly for the latter aspect, the role played by this document is crucial in filling the information gap existing in the financial statement: “management commentary should also include information about entity and its performance that is not presented in the financial statements but is important to the management of the entity.

The Board also suggests providing information aimed at offering a view of the evolution of corporate performance, so as to have a complete picture of the changes that have occurred over time and to have the possibility of making comparisons and providing useful forward-looking information. “Management should explain how and why the performance of entity is short of, meets or exceeds forward-looking disclosures made in the prior period management commentary. For example, if management stated targets for future performance in previous reporting periods, it should report the entity’s actual performance in the current reporting period and analyze and explain significant variances from its previously stated targets as well as the implications of those variances for management’s expectations for the entity’s future performance” (page 10)”.

The five disclosure profiles suggested by the Board are as follows:

- 1) the nature of business;
- 2) management’s objectives and its strategies for meeting those objectives;
- 3) the entity’s most significant resources, risks and relationships;
- 4) the results of operations and prospects; and
- 5) the critical performance measures and indicators that management uses to evaluate the entity’s performance against stated objectives

Clearly, for the purposes of our analysis the last two types of disclosure are relevant: the results of operations and prospects, to outline the entity’s current position with respect to performance, progress and prospects, and also “management should describe the relationship between the entity’s results, management’s objectives and management’s strategies for achieving those objectives. In addition, management should provide discussion and analysis of significant changes in financial position, liquidity and performance compared with those of the previous period or periods, as this can help users to understand the extent to which past performance may be indicative of future performance. (page 14). As far as prospects are concerned, “Management should provide an analysis of the prospects of the entity, which may include targets for financial and non-financial measures (page 15).

With regard to performance measures and indicators, the following should be noted:

1. “Performance measures are quantified measurements that reflect the critical success factors of an entity. (...) Management should disclose performance measures and indicators (both financial and non financial) that are used by management to assess progress against its stated objectives”. This restates the intention to introduce the management approach in the performance indicator calculation as well.
2. “The Performance measures and indicators will usually reflect the industry in which the entity operates. Comparability is enhanced if the performance measures and indicators are accepted and used widely, either within an industry or more generally”. Comparability is recognized by the Board both in general terms and at industry level: the question to be verified empirically is whether the comparison is actually possible or whether the indicators proposed in the report are only sector-specific.
3. “Consistent reporting of performance measures and indicators increases the comparability of management commentary over time. However, management should consider whether the performance measures and indicators used in the previous period continue to be relevant”. If the indicators have lost relevance, management should refrain from calculating them and provide adequate explanations.
4. Management is required to provide explanations on the calculation of non-GAAP measures and on the reasons that have led to their being included in the management commentary. Reconciliation with financial statement data is also required: “When financial performance measures are derived or drawn from the financial statements, those measures should be reconciled to measures presented in the financial statements that have been prepared in accordance with IFRSs” (page 16).

Lastly, it is interesting to note the “Users Needs” section, in relation to the disclosure profiles of interest to us (Table 7).

Elements	User needs
Results and prospects	The ability to understand whether an entity has delivered results in line with expectations and, implicitly, how well management has understood the entity’s market, executed its strategy and managed the entity’s resources, risks and relationships.
Performance measures and indicators	The ability to focus on the critical performance measures and indicators that management uses to assess and manage the entity’s performance against stated objectives and strategies.

Table 7: User Needs.

We may compare the MD&A approach with the MC approach and we find two similar aspects:

1. **Management’s view:** the principle that management commentary should describe management’s view of the financial statement has its roots in regulation. The MA&D should “... provide a narrative explanation of a company’s financial statements that enables investors to see the company through the eyes of management. (SEC, Regulation S-K, Item 303). That requirement has also been enshrined in securities regulation in Canada and in the UK ASB’s OFR Reporting Statement. (page 25).
2. **Forward-looking information:** this is the information that users need to understand the entity’s prospects. This disclosure is included in the MD&A requirements of the SEC (SEC, Regulation S-K, Item 303) and is listed “in both Canadian securities regulations and the European Modernization Directive”.

MC is included in IFRS Taxonomy Illustrated (March 2011) at page 3. The difficulties to translate the narrative report in XBRL are obvious: at an early stage the lack of detail in the regulation (MC is not a IFRS but it is a Practice Statement), does not conduct to development of a more specific taxonomy.

Further we will analyze the US Taxonomy Framework (Fig. 9).

The US Financial Reporting Taxonomy Framework is a collection of XBRL taxonomies that will be used to express the financial statement-based reports of both public and private companies across all industry sectors. Different components of the framework will be used for different reporting purposes, and new components will be added over time to cover more diverse reporting needs.

Below is a graphical representation of the US Financial Reporting Taxonomy Framework (each component will be explained in more detail later in this document):

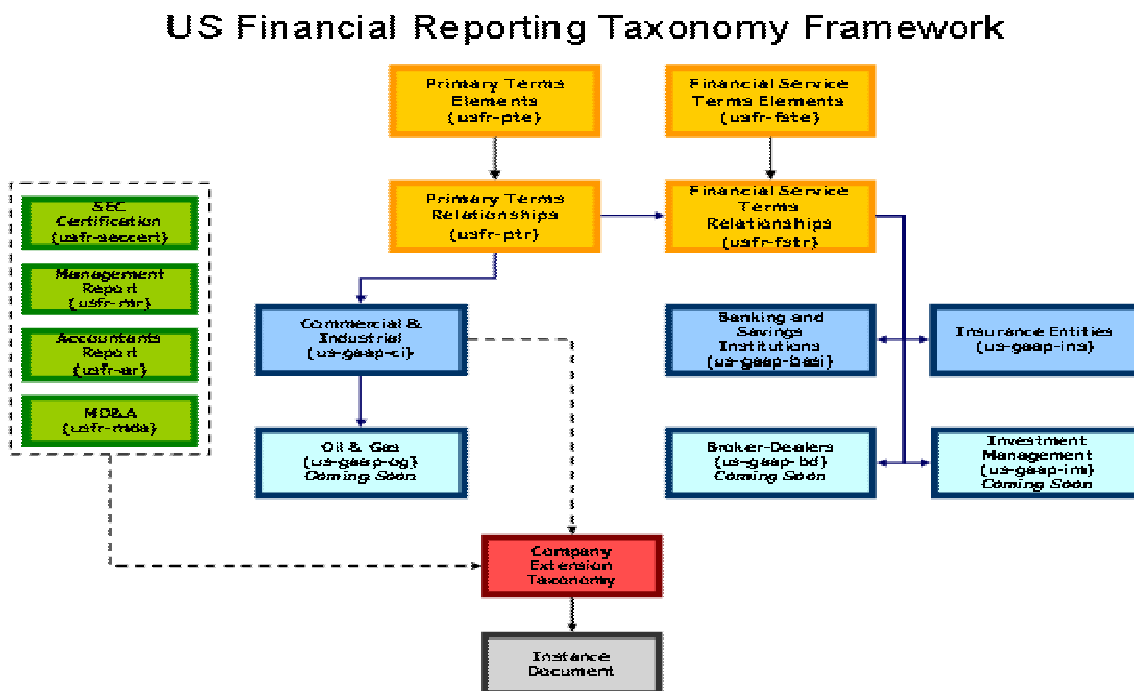


Fig. 9 U.S. Taxonomy Framework

The MD&A report represents one of the components included in the UFRTF, the add-on taxonomies which are self-contained taxonomies that may be used by creators of XBRL instance documents.

Add-on Taxonomies



Namespace Prefix	Name	Layer	Description
usfr-mds	Management Discussion and Analysis	Stand Alone Add-on	Includes information for the section of then annual report where the company’s management provides analysis on results of operations, financial position and other issues.

La MD&A is a key component of financial reporting that provide’s management’s view on the company’s current and future performance. Investor’s use of MD&A is of continuing interest because the MD&A is a key part of management’s disclosure package (Clarkson et al. 1999, Barron et al. 1999). High-level commissions are examining whether to move some content from other portions of the annual report to MD&A and to enhance the amount of narrative content provided by management (IFAC, 2008). Thus, the importance to investors of this information source could potentially increase.

While XBRL implementation is proceeding with numerical information, progress in applying it to the important qualitative information that accompanies the financial statements “is hindered by lack of common tagging structure”. A research has conducted a compare between alternative structures for the MD&A, comparing the standard format currently used by companies to a tagged format that mimics XBRL. Because the tagged structure allows investors to link disparate parts of the MD&A that are associated with common themes, the tagged structure should be associated with better linkage of the risk information contained in the case. (Arnold et al., 2009). The study has analyzed “a tagging structure” for the MD&A based on the framework developed by the Enhanced Business Reporting Consortium”. The researchers have compared professional and nonprofessional investors’ decision processes and outcomes using the standard and tagged formats, with common information content. Because the tagged structure allows investors to link disparate parts of MD&A that are associated with common themes, the tagged structure should be associated with better linkage of the risk information contained in the case. The research’s result is that follows: investors using the tagged format spend less time viewing the risk information and view relatively fewer items than those using the standard format. This fact is positive because the tagged format facilitates the incorporation of risk information into investor’s decision processes, compared to the standard MD&A format in current use. In sum this study’s results suggest that the tagged MD&A structure results in more effective and efficient incorporation of risk information into decision-making.

The translation of the information included in the MD&A report in XBRL language, not only the information focused on risks, but also the information on present and past company’s performance and

7. New trends about Enhanced Business Reporting

The recent international trends have revealed the increased importance of the business report which represent an unusual evolutionary report in respect of “traditional financial statement”. According to Engel et al. (2003) “business reporting includes, but is not limited to financial statements, financial information, non financial information, general ledger transactions and regulatory filings, such as annual and quarterly reports. XBRL specifications defines XML elements and attributes that can be used to express information used in the

creation, exchange, and comparison tasks of business reporting”. The need to extend the contents of the financial reporting must be evaluate in order to obtain a general improvement of the disclosure.

A recent study (Bonsòn et al. 2008) has analyzed the role of XBRL in Enhanced Business Reporting (EBR), which was initially developed by American Institute of Certified Public Accountants (AICPA) to overcome the limitations of traditional business reporting models. Many prior researches have emphasized the need to improve the traditional business reporting model in order to show companies true economic value (ICAS, 1988; ICAEW and ICAS, 1990, 1991; CICA, 1988; Rinerman, 1990; Wallman, 1995). In 1991 AICPA established the Special Committee on Financial Reporting, which is also known as the Jenkin’s Committee. The Commission proposed a new business report model, but some researchers have criticized that “very few of the recommendations made by the Jenkin’s Committee were put into practice” (Vasarhely and Alles, 2006). Then, the AICPA established the Special Committee on Enhanced Business Reporting (SCEBR). SCEBR was assigned the objective of developing a strategy to improve the disclosure of financial information by companies, and provide to guidelines for the production of additional reports that could meet markets’ growing demands for financial information (EBRC, 2004). The EBRC was founded by the AICPA, Grant Thornton LLP, Microsoft Corporation, and PricewaterhouseCoopers in 2005 upon the recommendation of the AICPA Special Committee on Enhanced Business Reporting. The EBRC is an independent, market-driven non-profit collaborative focused on improving the quality, integrity, and transparency of information used for decision-making in a cost effective, time efficient manner (www.ebr.360.org)

In refer to MC, we show the key points of comments (April 2006) submitted by EBRC on IASB Discussion Paper Management Commentary.

1. EBRC believes that MC should be considered an integral part of financial and other company performance-oriented reports;
2. EBRC considers that a standard was more likely to enhance MC and was to be preferred to non-mandatory guidance;
3. EBRC believes that there is no commonly accepted method of calculating a particular non financial metric and that an optimal solution would include the market-driven development of a voluntary, best practices framework;
4. EBRC believes that the framework development process is important not only in order to enable comparison between entities but is also critical in order to be able to leverage the potential of the eXtensible Business Reporting Language for electronic reporting of business information, including that which be required through an MC standard.

Very interesting comments are formulated by EBRC in response to the Discussion Paper for Consideration by the SEC Advisory Committee on Improvements to Financial Reporting (October, 2007). The EBRC mission is complementary to the Charter of the SEC Advisory Committee on Improvements to Financial Reporting in that both groups are, working “with a view to enhancing financial reporting for the benefit of investors, with an understanding that unnecessary complexity in financial reporting can be harmful to investors by reducing transparency and increasing the cost of preparing and analyzing reports”. The EBRC believes that the current financial reporting system in the U.S. can be improved by supplementing financial reporting with information that is not covered by GAAP accounting standards but that is increasingly useful for both companies and a broad range of stakeholders who make decisions based on information provided to them companies. In particular EBRC is interested in information on key performance indicators (KPIs) that are important because that inform judgment about a company’s future cash flows. Managers recognize the importance of KPIs

and it is for this reason that they are increasingly using “Balanced Scorecards” and “Executive Dashboards”, by whatever name, to monitor performance and make decisions. Boards of directors are also interested in KPIs in their role of monitoring management’s performance for the shareholders they represent.

A critical characteristics of KPIs is that the best way to measure them, and the measurement issue is usually not an easy one, to be process and/or industry-specific. EBRC emphasizes the importance of supplementing GAAP-defined financial measures with other information that is relevant for the decisions made by analysts, investors, rating agencies, other stakeholders and the companies themselves. EBRC believes the FASB should have direct responsibility for developing voluntary standards, and the consortium believes that they could play a useful role in providing guidance on the process by which these standards are set.

The U.S. Security and Exchange Commission’s Advisory Committee recommendations on Improvements to Financial Reporting (CIFiR) are very interesting. The final CIFiR report contained the following recommendation regarding key performance indicators:

“Enhanced business reporting and key performance indicators (KPIs) are disclosures about the aspects of a company’s business that provide significant insight into the sources of its value. The Enhanced Business Reporting Consortium has stated that the value drivers for a business “can be measured numerically through KPIs or may be qualitative factors such as business opportunities, risks, strategies and plans – all of which permit assessment of the quality, sustainability, and variability of its cash flow and earnings.

Recommendation 4.3.: The SEC should encourage private sector initiative targeted at best practice development of company use of key performance indicators (KPIs) in their business reports. The SEC should encourage private sector dialogue, involving preparers, investors (including analysts), and other interested industry participants, such as consortia that have long supported KPI-like concepts, to generate understandable, consistent, relevant, and comparable KPIs on relevant activity and, as appropriate, industry-specific, bases. The SEC has should encourage companies to provide, explain, and consistently disclose period-to-period company specific-KPIs. The SEC should consider reiterating and expanding its interpretive guidance regarding disclosure of KPIs in MD & A and other company disclosures”.

The EBRC Framework and the role of XBRL

In both documents the EBRC consortium emphasizes the close link between the development of a framework and the adoption of the XBRL language. In the first point EBRC has already started this process by developing a draft, high-level content framework based on current best practices including the PricewaterhouseCoopers ValueReporting™ framework, TRS mapping jointly developed by Accenture and AssetEconomics, the Operational Reporting and Intellectual Capital Reporting principles proposed by AssetEconomics, and the Gartner Business Performance Framework™. The high-level content categories of this framework include business landscape, strategy, competencies & resources, and performance.

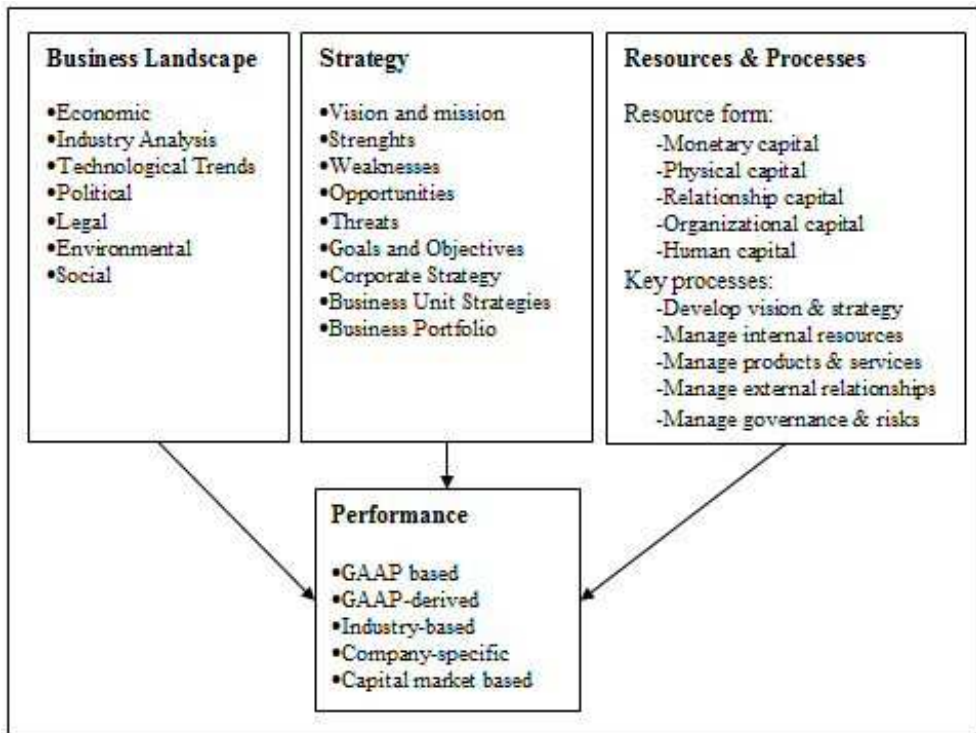


Fig. 8: EBR Framework

The part of the EBRC Framework concerning the company’s performance is following.

Fig. 9 EBRC Framework Version 2.1

D. Performance

D. 1. Performance— Summary	A summary of the key issues in the items below. This can be provided in lieu of a discussion of each category or can be omitted if each category is discussed specifically. For each category, the company can provide segment information as appropriate.
D. 2. GAAP-based	Discussion of outcomes on key GAAP-based measures such as revenues, earnings, and gross margins.
D. 3. GAAP-derived	Discussion of outcomes on performance measures (including definitions) relevant to all industries which are based on but not defined by GAAP such as return on invested capital and revenue growth.
D. 4. Industry-based	Discussion of outcomes on key performance indicators (including definitions) which are commonly used in an industry, including both financial (e.g., sales per square foot in retail) and non-financial (manufacturing yield rates in semiconductors) metrics.
D. 5. Company-specific	Discussion of outcomes on key performance indicators (including definitions) which are specific to a company’s strategy, including both financial (e.g., percentage of revenues from products introduced in the last three years) and non-financial (e.g., employee turnover) metrics.

D. 6. Capital market-based

Discussion of outcomes on performance measures (including definitions) which are based on the company's performance in the capital markets such as total return to shareholders, debt ratings, and weighted average cost of capital.

Some researchers have noted that the guidelines were very general and the degree of abstraction made their effective application difficult. Therefore it is necessary to establish a set of requirements with greater level of detail. (Bonsòn et al., 2008). XBRL, through the development of the taxonomies, can provide specific labels and relationship in order to portray of all kinds of information. According to AICPA: XBRL, a new global open standard for formatting financial information, is revolutionizing the way financial information is being reported. EBR is a framework around company disclosure that will give investors a more complete picture. XBRL is “how” and EBR is the “what” of financial reporting. In the absence of XBRL, reporting is limited to a static paper-based environment wherein information is not contextually relevant to the actual reports, and/or is not provided in a manner that can be immediately and effectively reused (www.ebr360.org). XBRL and EBR are strictly connected: XBRL is a format of how information is reported, whereas EBR is about the content that is being reported. EBR enables a more robust application of XBRL in the sense that an EBR framework makes it possible to create useful taxonomies for information companies report beyond the financial statements themselves, such as, for example, Management Discussion & Analysis (MD & A) and MC. In respect of the convergence process IASB-FASB, it should be interesting the development of a unique internationally-recognized framework in order to construct a tagged structure for MD&A disclosures, MC disclosures and other non-GAAP, non-IFRS disclosures in order to the users can obtain advantages. It is possible to fulfil the objectives required in MC thanks to XBRL.

8. The WICI taxonomy: the Key Performance Indicators (KPI) and the standardization by XBRL language

WICI⁴⁰ sees the business or a company as a value creation mechanism which converts financial and non financial input to certain outputs including financial performance. The traditional reports tend to focus only on financial performance, but the business report should not specialized in financial information, nor only focus on past performance, but should also cover mid and long term aspects of value creation.

Recently many kinds of reports concerning non financial information have been published by the companies. We can observe that the increase of the companies voluntary disclosure involves additional cost, because the companies cannot obtain positive judgments by investors and stakeholder. WICI proposes a strong change in the business reporting in order to depict the business activities in an integrated model with financial data, financial

40 The WICI (World Intellectual Capital Initiative) is a world business reporting network and it was formed November 7, 2007. It is a private/public sector partnership for improving the reporting of intellectual assets and capital and key performance indicators that are of interest to shareholders and other stakeholders. The Promoting Parties of WICI are Enhanced Business Reporting Consortium, European Federation of Financial Analyst Societies, Japan Ministry of Economy, Trade and Industry, Organization for Economic Development and Cooperation, the Society for Knowledge Economics, University of Ferrara and Waseda University. On October 16, 2008 WICI released its first version of a comprehensive information framework and XBRL taxonomy to help companies to better communicate with their investors and other stakeholders about business strategy and performance. The work on the reporting framework and taxonomy was carried out by the WICI Framework Task Force. It has published the guidelines included in the file `wici_taxonomy_framework-v1_0.zip` which contains the scheme of taxonomy, the list of the all element/concepts, the layout of presentation and the definition of relations between the elements. (<http://www.worldici.com>).

performance and non-financial elements. The construction of an “universal” framework such as one size-fits-all-approach might have a negative effect on the materiality of disclosure. WICI prefers to provide a framework to allow a company to choose the most material KPIs by itself.

KPIs are provided as numerical figure (metrics) related to critical factors of value creation, and they support the explanation of business strategy linking it to future financial or economic performance. KPIs disclosed externally will likely be a subset of those used in a company’s internal decision making process, including those that are relevant to a user’s assessment of the company’s value creation potential, by striking a balance between transparency and confidential information.

WICI KPIs are the list of frequently used KPIs to meet the current business/economic environment and situation. Therefore, they shall be modified as needed over time in response to significant changes in the industry specific and/or general business environment. According to their relevance, KPIs can be categorized into three classes: general KPIs, industry-specific KPIs, and company-specific KPIs. AS first step, WICI intends to develop and set up industry-specific KPIs, followed a process of singling out common KPIs among these, based on the results of their application. WICI presents frequently used KPIs as examples or reference in order to facilitate and substantiate the explanation by companies of their own value creation mechanism/model. The number of disclosed KPIs by a company may vary, depending on many factors including, for example, those concepts actually used by management to assess corporate performance. WICI expects the standardization and selective disclosure of WICI-KPIs by companies to provide companies needed flexibility in the explanation of their economic substance and business model, while enhancing the comparability of disclosed information. In addition WICI expects that the potential for decreasing the cost for disclosure and internal management related to indicators by focusing on the most critical performance indicators that drive economic performance, while helping companies better to communicate their intentions and strategy by encouraging focused disclosure thus reducing uncertainty surrounding company activities potentially reducing stock price volatility, debt and equity costs. Another expected impact may be provide skillful investors with significant forward-looking information to judge and forecast corporate performance and enable stakeholders to more easily and appropriately evaluate companies’ performance.

WICI recommends companies to use XBRL format. This approach is taken to improve the comparability and analysis of reports through empowering readers of reports by using the flag information which can be easily and conveniently used for searching (www.wici-global.com).

WICI believes that the construction of a framework will make it possible for a company to create a comprehensive and integrated report based on its strength and interests. In addition, the development (definition) of an integrated report should reduce the additional cost to collect information for disclosure. WICI hopes more and more companies will be able to easily present an integrated and comprehensive report on material financial and non financial elements of the company’s performance. In addition, WICI recommends that, where possible, companies disclose WICI-KPIs in the XBRL format which provides an internationally standardized method for communicating framework concepts. The expected impact may be to enable market participants to collaborative develop/extend/maintain the WICI taxonomy framework thereby providing a sustainable market reference for these highly relevant information concepts.

<annex 2> Skeleton of the report

<p>(General) (0) Basic management philosophy (a) Outline of business characteristics</p> <p>(From Past to Present) (b) Management policy in the past (b)(c) Investment based on management policy (figures included) (b)(c) Unique intellectual assets accumulated in the company, strengths based on them, and value creation method (based on the above) (supporting indicators included) (d) Actual performance in the past, such as profits (as a result of value creation) (figures included)</p> <p>(From Present to Future) A: Identification of future uncertainty/risks, how to deal with them, and the future management policy including those elements BC: (Based on (b)(c) and the assessment of the past to the present) Intellectual assets that rooted in the company and will be effective in the future, and future value creation method based on them (supporting indicators included) BC: New/Additional investment for maintenance and development of intellectual assets needed (in line with the management policy A) (figures included) D: Expected future profits or target, etc. (based on the above)</p>
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a-d and A-D reflects the WICI framework in the previous slide

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<annex 1> WICI Business Reporting Framework ver. 1.0

O. Corporate Profile & Business Attributes		
O-1. industry overview O-2. duration and results per business unit O-3. business cycle per business unit O-4. competitive analysis		
past	current	future
a. Business Landscape a-1. business landscape summary	d. Performance d-1. performance summary (results of operation) d-2. GAAP based d-3. GAAP derived d-4. Industry based d-5. Company specific d-6. Capital market-based	A. Business Landscape A-1. business landscape summary A-2. economics A-3. industry analysis A-4. technology trends A-5. political A-6. legal A-7. environmental A-8. social
b. Strategies b-1. corporate strategy summary b-2. vision and mission b-3. strength b-4. weakness b-7. goals and objectives b-8. corporate strategy b-9. business unit strategies b-10. business portfolio		B. Strategies B-1. corporate strategy summary B-2. vision and mission B-5. opportunities B-6. threats B-7. goals and objectives B-8. corporate strategy B-9. business unit strategies B-10. business portfolio
c. Resources and Processes c-1. resources and processes summary c-2. resource forms c-3. key processes c-4. value drivers		c. Resources and Processes c-1. resources and processes summary (C-99.) Resources and processes summary especially with changes in resource forms, key performance and main process from that described in c-2 and c-3 D. Performances D-1. financial prospects (summary)

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Another aspect refers to the comments on the June 2009 IASB Exposure Draft on Management Commentary submitted by WICI (February 2010). WICI believes that if there is one element missing in the overall discussion about MC that we could suggest, it is the reference to shareholder value and more generally to stakeholder value. The MC is the most natural and legitimate reporting space to discuss how the architecture for shareholder/stakeholder sustainable value creation is designed. A well articulated description of the shareholder/stakeholder value creation process can offer great disclosure opportunities about, for example, how the company manages those key business drivers and how those drivers have evolved over time though some kind of quantitative or qualitative measurement. Further, WICI recommends that IASB moves further toward the establishment of a common, broader framework for business reporting in cooperation with other organizations that have already or are working on publishing open standard frameworks for business reporting. In particular, WICI observes that the suggested content elements by IASB are appropriate and are consistent with the high-level elements of the WICI framework. WICI also recommends that IASB continues efforts to encourage more companies to disclose these elements using quantitative financial and non financial information (e.g. KPIs) and including definitions and calculation formulas where appropriate, to foster the persuasiveness of accompanying narrative descriptions.

Another issue is to improve the comparability of management commentary disclosures. The use of XBRL format would help on this issue, by raising the capability of users to compare not only disclosed elements of information, but also the context around the information, including the underlying definition, calculation where appropriate, and other relevant contextual information. A common framework for MC disclosures would enable the development of a corresponding XBRL taxonomy, which would in turn enable enhanced transparency and comparability of MC disclosures.

9. Conclusion

The aim of this paper was to analyze the connection that links financial performance, adoption of IFRS standards and XBRL language. The first point was that the adoption of IFRS standards greatly improved the disclosure of the performance itself. The very next step was to underline the relevant role of XBRL in improving business reporting. By means of XBRL it is possible to create and diffuse Enhanced Business Reports (EBR) and to provide a sound framework for measurement and evaluation of Business Performance by means of a specific set of Key Performance Indicators (KPIs). In particular, we emphasized the potential benefits of the use of XBRL in providing integrated reports in a more timely and accurate way.

As the worldwide financial crisis continues, calls for a greater transparency in financial reporting are increasing (Laux, Financial Executive, 2009). The adoption of IFRS standards may only partially fulfil these requests.

While the current GAAP reporting model provides an effective foundation from which business reporting should start, timely decisions can be made only by looking at both lagging indicators (such as those found in historical financial statements) and leading indicators (such as value drivers and KPIs), which provide a more predictive information about future cash flows and the viability itself of a business. Although this is the kind of information that management currently uses to make key decisions, there is still a fracture within the corporate

reporting process between the information that management uses internally for decision-making purposes, and the one that is provided externally to the market-place (Laux, 2009).

The development of XBRL taxonomy by EBRC and WICI may produce benefits because the high level items within this framework can be "tagged". XBRL enables providers and users of information to produce, capture and analyze information much more efficiently and effectively on a timely basis and across all software via the Internet. Coupled with the Internet – which allows key financial and nonfinancial business information to be widely available electronically – XBRL will enable a more effective utilization of financial disclosure.

Some stakeholder in particular will be strongly interested in this process. Financial institutions and financial analysts will spend less time on technical issues about data and thus they will have more time for analyses and evaluations.

The analysis of financial information is based on a three-step process: 1) data gathering and data enter; 2) data cleaning, data reclassification and data merging; 3) data analysis and data evaluation.

By means of XBRL it is possible to drastically reduce the time to devote to the first two steps, thus increasing the time available for the latter step.

In addition XBRL will make it easier for companies to track the performance of competitors and customers, and to benchmark their own performance (Kugel, 2008).

The impact of IFRS and XBRL on performance measurement and disclosure will affect both financial reporting and Business Performance Management (BPM) processes.

Financial reporting is the window through which capital markets view a business's performance. The move to IFRS will affect not only the accounting and reporting functions, but also investor relation and all other areas of the business that rely on accounting information – including tax, IT, HR, and legal.

Some executives, evaluating the massive undertaking that the IFRS conversion represents, are beginning to realize that they can use the conversion effort as an opportunity to rethink the way their company analyzes and rewards business performance. Moreover, they may redesign their performance management framework from the ground up.

After all, an IFRS conversion necessarily shifts the lens through which the company's performance is evaluated (Rusnak, 2009).

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