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Critical Reflection on XBRL: A "Customisable Standard" for Financial Reporting?

Diego Valentinetti (Corresponding author)

Department of Economic studies

University "G. d'Annunzio" of Chieti-Pescara

Viale della Pineta, 4 - 65129 Pescara, Italy

Tel: +39 347 8425306 Fax: +39 085 45083 208 E-mail: d.valentinetti@unich.it

Michele Antonio Rea

Department of Economic studies

University "G. d'Annunzio" of Chieti-Pescara

Viale della Pineta, 4 - 65129 Pescara, Italy

Tel: +39 085 45083 223 Fax: +39 085 45083 208 E-mail: m.rea@unich.it

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Abstract

In this paper, we discuss the dual power of XBRL to standardise and/or accommodate firms' financial reporting practices. We first develop a conceptual framework for understanding which factors may affect the adoption of XBRL and, in turn, standardise or customise financial reporting. We then examine the XBRL implementation models adopted in two countries: Italy and the US. In Italy, XBRL is required through the application of a standard taxonomy (the Italian GAAP Taxonomy), without the ability to create and submit taxonomy extensions. Conversely, in the US, XBRL is required through the application of a standard taxonomy (the US GAAP Taxonomy), along with the ability to define individual extensions to be submitted to the SEC. We discuss the potential effects of taxonomy application on the representation of financial information. The application of a taxonomy on a "blind basis" (extensions not permitted) leads not only to the full comparability of financial data but also to a loss of idiosyncratic information. The application of a taxonomy on a "minimum basis" (individual extensions permitted) preserves specific information, but causes a potential loss of data comparability.

Keywords: XBRL, financial reporting, standardisation, US GAAP

1. Introduction

The eXtensible Business Reporting Language (XBRL) is a language for the electronic communication of business information, providing major benefits in the preparation, analysis and communication of business information. It consists of specific hierarchical dictionaries, called taxonomies, used to define the specific tags for individual items of business data, including their attributes and their interrelationships. The structure of XBRL allows very efficient handling of business data by computer software, by supporting all the standard tasks involved in compiling, storing and using business data. Hence, XBRL-formatted data be searched, selected, exchanged or analysed by computer, or published for ordinary viewing (http://www.xbrl.org).

The ability of the XBRL to standardise financial reporting has been highlighted since its inception. It has been argued that the widespread adoption of XBRL may increase the pressure on companies to report under a single set of Generally Accepted Accounting Principles (GAAP) worldwide and, in turn, to standardise both the format and content of financial information (Wagenhofer, 2003). Indeed, the definition of generally accepted, XBRL-based taxonomies allows the further standardisation and harmonisation of international business reporting standards (Premuroso and Bhattacharya, 2008; Weber, 2003). From this perspective, standard setters and regulators play a relevant role in defining (and requiring) well-structured taxonomies based on GAAP. The most interesting aspect of this, today, is the growing adoption of XBRL in conjunction with the worldwide movement towards International Financial Reporting Standards (IFRS): having a unique framework for financial reporting would allow the definition of a global standard XBRL taxonomy, including a unique set of element names aimed at standardising the financial information reported by firms (Bonsón, 2001; Efendi et al., 2011). The IFRS Foundation itself recognises that "Both IFRSs and XBRL are intended to standardise financial reporting in order to promote transparency and to improve the quality and comparability of business information." (http://www.ifrs.org/XBRL/XBRL.htm).

In spite of this common belief, the actual application of XBRL taxonomies raises a problem in terms of accommodating financial reporting practices to user demands at the country, industry or firm level. According to Debreceny and Gray (2001), the development of a suite of new taxonomies that meets the needs of defined market segments is an important requirement for the global XBRL community. Cohen (2004) emphasises the flexibility allowed by XBRL, as it provides a framework to communicate regional, industry, or corporate differences. Bovee et al. (2002; 2005) note that, to accommodate the needs of different countries and/or industries, numerous XBRL taxonomies must be developed. In evaluating the implications of the proposed SEC Voluntary Filing Program in the XBRL format, Debreceny et al. (2005) discuss the motivations that would push companies to extend the XBRL taxonomies to satisfy their reporting needs, and they expect that extensions will be necessary until the taxonomies are fully developed. Similarly, Plumlee and Plumlee (2008) argue that, although the US GAAP taxonomies are intended to be as comprehensive as they are practicable, the diversity in US financial reporting practices may lead companies to create their own taxonomy extensions to tag particular information. Furthermore, all these

arguments have been confirmed in various empirical studies (Bartley et al., 2011; Bonsón et al., 2009; Boritz and No, 2008, 2009; Bovee et al., 2002; Debreceny et al., 2011; Valentinetti and Rea, 2011, 2012, 2013), revealing the existence of many discrepancies between the XBRL taxonomies and the diverse financial reporting practices adopted by firms.

This study discusses the dual power of XBRL to standardise and/or customise financial information reported by firms. After reviewing the previous empirical research on XBRL and financial reporting practices, we propose a framework for investigating which factors may affect the implementation of XBRL for financial reporting purposes. Based on this framework, the analysis focuses on the XBRL implementation models adopted in two countries: Italy and the US. We aim to show how regulators' choices may affect the standardisation or customisation of financial reporting, taking into account the factors identified in the proposed framework. Hence, the study analyses how XBRL's dual power to standardise or customise financial reporting affects the quality of financial information in terms of comparability and potential loss of information.

The remainder of this paper is structured as follows. The next section reports on previous empirical research on the ability of XBRL taxonomies to describe firms' financial reporting practices. The third section develops a framework to analyse the factors affecting the application of XBRL to corporate financial reporting. The fourth section analyses the XBRL implementation models adopted in Italy and the USA. The fifth section discusses the potential impacts on the quality of financial reporting in terms of comparability and potential loss of information. Concluding remarks are provided in the last section.

2. Previous research on XBRL and financial reporting practices

Substantial empirical evidence confirms the effective distance that exists between XBRL taxonomies and corporate financial reporting practices.

The first evidence was provided by Bovee et al. (2002) through an assessment of the Year 2000 Taxonomy for financial reporting by commercial and industrial (C&I) firms under US GAAP. In their analysis, the authors matched each line item in the 1999 annual financial statements of 67 US public companies with an XBRL taxonomy tag. They collected a number of "Special Attention Items" (SAIs) representing the accounting items that did not directly map to the taxonomy tags. Hence, both the absolute value and proportion of SAIs collected were considered as indicators of the quality of fit between the taxonomy and firms' reporting practices. Their findings revealed an absolute value of 866 SAIs noted, equal to a 14% average misfit per firm. Additionally, further statistical tests showed that the level of misfit was significantly higher in the Statement of Cash Flow, and in two particular industries, namely, Petroleum Refining and Entertainment. This analysis confirms that there may be significant differences between the affordances of XRBL taxonomies and firms' reporting practices. Specifically, the differences noticed among the industrial sectors would justify the development of industry-specific extensions.

In assessing the quality of XBRL fillings in the SEC's XBRL Voluntary Filing Program (VFP), Boritz and No (2008) examined the extent to which US filers make use of taxonomy

extensions in their instance documents. Analysing 68 companies in the VFP as of December 31, 2007, their findings showed that all 304 filings contained extended taxonomies. Companies used 163 approved taxonomy elements and 190 extension elements on average, which represents 55.4% of the total elements used. This study revealed that significant parts of the submitted instance documents were based on companies' own customised taxonomy extensions, thus showing the need to create customised taxonomies to enable companies' XBRL filings to parallel the official filing as closely as possible. However, the authors recognised that it was not possible to justify all the extensions noted because of the absence of any statement by the company or an assurance provider about the extensions.

In a subsequent study, the same authors (Boritz and No, 2009) conducted a mock audit of the XBRL-Related Documents of United Technologies Corporation's October 2005 10-Q to identify the guidance required for the provision of assurance on XBRL-Related Documents. Among the numerous findings, the analysis showed significant use of taxonomy extensions in the XBRL-documents. Specifically, of a total of 877 items reported by the United Technologies Corporation in its October 2005 10-Q, the authors found 480 items reported using the company's own taxonomy extensions, representing the 54.7% of the total items. According to the authors, the United Technologies Corporation indicated that the extensions were necessary due to the limitations of the standard taxonomy, although the analysis also revealed that, in some cases, a custom extension was used instead of an available XBRL taxonomy element.

Bonsòn et al. (2009) examined whether the IFRS-GP Taxonomy adequately covers European companies' financial reporting practices. They selected a sample of 77 European companies and matched their IFRS-based financial statements with the IFRS-GP Taxonomy issued by the International Accounting Standard Board (IASB). Following the procedure previously applied by Bovee et al. (2002), they collected a number of deviations (namely, "Elements of Special Attention", or ESAs) confirming that the fit between the IFRS-GP taxonomy and the information reported by the European entities was imperfect. The general misfit, on average, was equal to 28% per firm, and additional tests indicated that such a misfit depended on the type of financial statement and the sector (specifically, the Statement of Changes in Equity and the Financial and Insurance sectors showed the highest proportion of misfit). The results led the authors to suggest certain extensions to the IFRS-GP Taxonomy to cover all the financial reporting practices adopted by European entities.

In their empirical analysis of the extent of calculation errors in the first round of filings made in the XBRL format under the SEC interactive data mandate, Debreceny et al. (2010) found that many of the errors retrieved involved taxonomy extensions. In particular, from a total number of 393 filings drawn under the US GAAP Taxonomy, the results showed a 10.8% average value of concepts with facts that are extensions. For this reason, the authors argued for further research on the entity deployment of taxonomy extensions, as it will contribute to knowledge on data quality and the completeness and usability of the US GAAP Taxonomy.

Bartley et al.'s (2011) study identified common errors in American VFP filings and tracked their frequency from the first to the last filings. The authors paid particular attention to the

accuracy of initial and subsequent filings of XBRL instance documents by companies participating in the VFP and detected numerous errors and inconsistencies, including missing financial statement elements, incorrect amounts, incorrect signs, duplicate elements, financial statement concepts not tagged with the appropriate elements, and inaccuracies in the display of the financial statements. In doing so, they found that the sample companies created a relevant number of element extensions to the GAAP Taxonomy, many of which seemed to be unnecessary. The average number of unique elements created by the 11 sample firms was 271 in 2006 and 80 in 2008, demonstrating that filers needed to create company-specific elements not included in the US GAAP Taxonomy.

Valentinetti and Rea (2011) assessed the fit between the XBRL Italian GAAP Taxonomy and the traditional annual reports of Italian non-listed companies. In a sample of 264 companies applying Italian GAAP to draw their financial statements, they found an average number of Elements of Special Attention (ESAs) equal to 7.16 per firm, which corresponded, in relative value, to 4.84% of general misfit. While the Balance Sheet and Income Statement revealed a minimum level of misfit (4.12% and 3.85% on average, respectively), the highest value of misfit was retrieved from the Memorandum Accounts (32.52% on average). They also examined the differences in the aggregation of data between the reporting practices of firms and the taxonomy hierarchy and found that the sample companies reported more disaggregated information than the taxonomy structure allowed. Additional statistical tests showed that companies reporting more detailed information in the Memorandum Accounts were larger and typically belonged to the Chemicals and Health Care sectors.

Debreceny et al. (2011) analysed the extensions to the 2009 US GAAP taxonomy in a subset of XBRL filings made to the SEC, with the aim of assessing the impact of extensions on the quality and comparability of the XBRL-tagged disclosures in the SEC's XBRL mandate. Specifically, they examined in detail the monetary extensions made in filings by 67 large accelerated filers between April 15, 2009, and June 2010. Their findings revealed that more than 40% of the extensions were unnecessary because appropriate elements already existed in the US GAAP taxonomy, and some 30% of the extension elements were new concepts because the taxonomy did not include an element for a particular disclosure made by the filer. Additionally, consistent with prior empirical studies (Bovee et al., 2002; Valentinetti and Rea, 2011), a number of extensions were the result of either aggregations (17%) or disaggregations (4%) of existing taxonomy elements.

Finally, Valentinetti and Rea (2012) matched the IFRS Taxonomy elements to the financial statement items drawn up by Italian listed companies, for which the application of IFRS is compulsory. They analysed a sample of 89 companies listed on the Italian Stock Exchange Market and found that their financial statements did not perfectly match the IFRS Taxonomy (on average, 75.39 of ESAs per firm, corresponding to 50.36% of general misfit). Similarly to their first study, they also analysed the level of disaggregation of the customised elements, confirming the significant relationship between misfit and firms' sizes and sectors (namely, Insurance and Financial Services).

3. A framework for analysing the application of XBRL to financial reporting

In this section, we develop a framework to analyse the application of XBRL to financial reporting. Specifically, we focus on the representation of financial information in the financial statement documents prepared by firms. Such a framework can help us to better understand the trade-off between the standardisation and customisation of financial reporting in XBRL.

Following a top-down approach, our framework considers three main factors: a) the financial reporting environment; b) the XBRL taxonomy development; and c) the XBRL implementation model. The following sub-sections explain in depth the critical factors to be considered when deciding to apply XBRL to financial reporting.

3.1 Financial reporting environment

The first factor of the framework concerns the financial reporting environment in which XBRL is implemented. Specifically, the dichotomy of principles-based vs. rules-based accounting standards and the financial statement models required by regulators should be analysed prior to implementing an XBRL taxonomy.

Despite the absence of an agreed-upon definition of principles-based and rules-based standards, the debate on this topic in the accounting literature is relevant (Benston et al., 2006; Berkowitz and Rampell, 2002; Maines et al., 2003; Mergenthaler, 2009; Nelson, 2003; Nobes, 2005; Schipper, 2003). Mergenthaler (2009) identifies the characteristics of rules-based standards based on prior literature and sources: 1) bright-line thresholds; 2) scope and legacy exceptions; 3) large volumes of implementation and guidance; and 4) high level of detail. The presence of these characteristics allows us to classify an accounting standard as more (or less) rules-based, and, then, to consider the discretionary power of accounting managers in applying that standard. A set of principles-based standards leads accountants to use their judgment to determine whether various financial reporting tactics are appropriate (Berkowitz and Rampell, 2002). A set of rules-based standards, by contrast, has the power to both increase the accuracy with which standard setters communicate their requirements and to reduce the sort of imprecision that leads to aggressive reporting choices by management (Nelson, 2003). By relying so intensely on rules rather than principles, CPAs abdicate their responsibility to use their professional judgment (Berkowitz and Rampell, 2002).

Similar considerations may be made regarding the structure and content of each financial statement required by regulators: there is a continuous spectrum from customisable reports (maximum flexibility) to rigid and unchangeable layouts (maximum rigidity). The former allows a great deal of flexibility in terms of the depth (i.e., the desired level of disaggregation) of financial information to be reported, whereas the latter requires a relatively rigid schema of information to be reported, allowing no room (or very limited room) for flexibility to report company-specific information. Several intermediate situations between these two extremes can be identified based on specific regulated amendments, such as the minimum content required for financial statements, industry-specific adaptations, limited derogations allowed under certain conditions, and so on.

3.2 XBRL taxonomy development

The second factor of the framework concerns the implementation of XBRL taxonomies. In particular, considerable attention should be paid to their hierarchical structure and content.

Taxonomy developers and maintainers should address this issue based on the financial reporting environment in which the taxonomy will be applied. Reasonably, a set of rules-based accounting standards would lead to the definition of a taxonomy schema that includes a list of the accounting items strictly required by those standards. A taxonomy based on principles-based standards, in contrast, would consist of a basic list of items in accordance with the guidelines offered by those standards, along with a set of additional elements referring to common practices that are not directly required by the standards (Bonsón et al., 2009; Bovee et al., 2002; Debreceny et al., 2010).

3.3 XBRL implementation model

The third factor of the framework concerns the XBRL application models adopted by regulators; that is, once an XBRL taxonomy has been implemented (or identified, if it has been previously implemented by an external entity), regulators should decide how to require the application of that taxonomy.

One solution could be the application of the taxonomy on a blind basis, without the possibility of creating customised taxonomy extensions.

An alternative solution could be the application of the taxonomy on a minimum basis, for which the creation of customised extensions is allowed or, even better, required by regulators.

The former aims at standardising the content of financial statements, while the latter aims at customising company-specific information.

3.4 Standardisation vs. customisation

In summary, the combination of the three factors discussed above addresses the challenge faced by XBRL within the financial reporting environment: standardisation vs. customisation, as shown in Figure 1. On the one hand, the alignment of rules-based standards (and financial statements), rules-based taxonomies and blind-based application of taxonomies leads to the standardisation of financial information. On the other hand, the alignment of principles-based standards (and financial statements), practices-based taxonomies and minimum-based application of taxonomies leads to the customisation of financial information. Additionally, as depicted in the grey middle section of the figure, a number of intermediate patterns can be identified depending on specific situational elements.

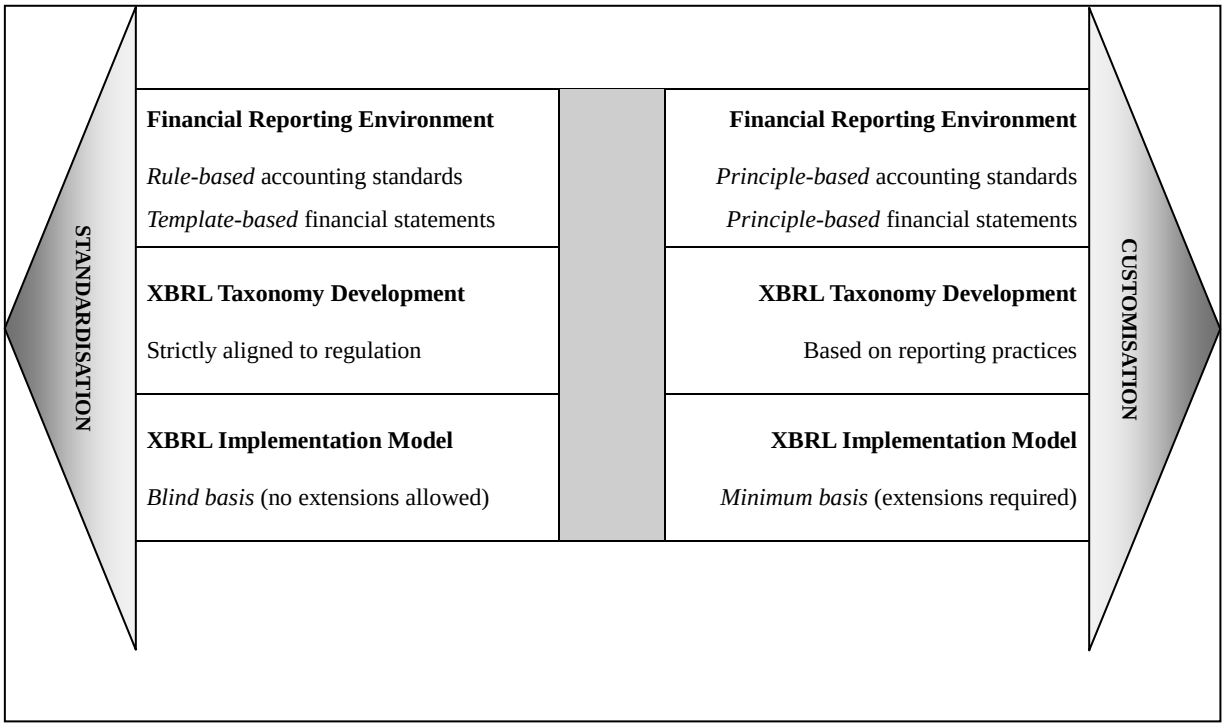

Figure 1: XBRL and the trade-off between standardisation and customisation of financial reporting

4. XBRL adoption: A comparison of Italy and the US

This section applies the proposed framework to analyse the adoption of XBRL in two different countries: Italy and the US. The analysis is based on the three factors of the framework, with the aim of highlighting the specific characteristics of the different implementation models adopted by each country.

4.1 Italy

4.1.1 Financial reporting environment

Italian financial reporting regulations provide for two alternative financial statement models: one based on national accounting principles, and one based on IFRS.

The national accounting model is regulated by the Italian Civil Code in the section entitled "On annual accounts" — from article 2423 to article 2435bis — integrated by the accounting principles issued by the Italian Organisation of Accounting (OIC, Organismo Italiano di Contabilità). These regulations provide a set of rules-based accounting standards along with a compulsory schema for the contents of financial statements of Italian non-listed companies. Specifically, art. 2424 and 2425 provide a rigid hierarchical structure for the accounting items of the Balance Sheet and Income Statement, respectively. However, article 2423ter grants some derogations of the required accounting items under certain conditions: a) subdividing items, without the elimination of the comprehensive amount; b) grouping items, when their amounts are insignificant for the "clarity" and "true and fair view" principles; and c) adding new items, when certain information cannot be included in the provided items. These options

allow a "flexible zone" for firms preparing the mandatory annual reports; in other words, there is minimum room for flexibility in the reporting practices of firms preparing financial statement documents under the Italian GAAP.

The IAS/IFRS-based accounting model is regulated by a number of national laws that apply the European financial reporting rules (mainly the European Community Regulation 1606/2002, requiring companies listed in regulated European markets to adopt the IAS/IFRS for their consolidated accounts as of January 1, 2005). Specifically, Legislative Decree 38/2005 gave Italian listed companies the option to adopt IAS/IFRS for their 2005 fiscal year consolidated accounts, and required them to adopt IAS/IFRS beginning in the 2006 fiscal year, when the obligation was also extended to the individual accounts of listed companies, including banks and financial companies. The new consolidated and individual accounts have been derived from financial statements prepared in accordance with the provisions of the Italian regulation. Specifically, on the basis of the Recommendations of the Committee of European Securities Regulators (CESR) and the information required by IFRS 1, "First time adoption of International Financial Reporting Standards", a number of appropriate adjustments were applied to reflect the changes in the presentation, recognition and valuation required by the IAS/IFRS. However, regarding the content to be reported in each document, Legislative Decree 38/2005 refers to the structure and content identified by the IAS 1, "Presentation of Financial Statements", in terms of the minimum content to be reported by firms. This means that accounting managers can decide to what extent to aggregate accounting items when preparing financial statements, within the limits imposed by IFRS and the Italian application thereof.

4.1.2 XBRL taxonomy development

The establishment of the XBRL Italy Association in September 2006 represented the first step for XBRL adoption in Italy (http://www2.xbrl.org/it/default.aspx). Several working groups within this association have been established with the aim of supporting the standardisation and modernisation of financial communication in Italy. In particular, two specific task forces were created to accomplish two important priorities: the implementation of an XBRL taxonomy based on Italian GAAP, and an XBRL taxonomy based on the International Financial Reporting Standards (IFRS).

To accomplish the mandated filing in XBRL format, Italian non-listed companies are required to apply the Italian GAAP Taxonomy (namely, the Tassonomia Principi Contabili Italiani). To this point, three versions of the taxonomy have been released: the v0.99 beta-release, on December 15, 2008; the v1.00, on February 16, 2009; and the v1.10, on January 4, 2011 (http://www2.xbrl.org/it/nmpxbrl.aspx?id=271). This taxonomy closely reflects the annual accounts layout established by the Italian Civil Code for non-listed limited companies. The taxonomy is structured into four accounting schemas:

1) Ordinary financial statement

2) Abridged financial statement

3) Simplified financial statement

4) Consolidated financial statement.

In compliance with Italian financial reporting regulations, each of the aforementioned accounting schemas consists of three documents:

- Balance Sheet
- Income Statement
- Memorandum Accounts.

4.1.3 XBRL implementation model

Law No. 248 of August 4, 2006, proposed the adoption of XBRL for the regulated financial statements of Italian firms Subsequently, a Prime Ministerial Decree issued on December 10, 2008, provided for the compulsory filing of financial statements in XBRL format for the limited companies that do not apply IFRS, that is, companies that prepare their financial statements according to Italian accounting principles based on the Civil Code requirements (banking and insurance companies are not involved). The first mandatory filing of financial statements in XBRL format was applied to these entities closing their fiscal year after February 16, 2009.

In summary, the Italian GAAP Taxonomy closely aligns with Italian financial reporting regulations, specifically, with their hierarchical accounting structure. In this regard, it is important to highlight two crucial points.

First, the taxonomy consists only of the mandatory accounting items required by the Italian Civil Code. This means that any discretionary elements derived from the three classes of derogations discussed above — a) subdividing items; b) grouping items, and c) adding new items — are not included in the taxonomy. Companies that would take advantage of this type of "flexible zone" should create private extensions to the taxonomy to meet their reporting needs.

Second, Italian regulations do not allow the definition of private extensions to the taxonomy: companies are obliged to generate and submit their XBRL instance documents using only the accounting items defined by the taxonomy. In other words, they lose the opportunity to exploit the "flexible zone" granted by the Civil Code, but not by the Italian GAAP Taxonomy.

Hence, the combination of these two issues — rigid taxonomy and taxonomy extensions forbidden by the regulator — leads to the conclusion that the application of the Italian GAAP Taxonomy is "closed". Italian non-listed companies must create their instance document by means of a fixed and unchangeable standard taxonomy, reflecting a template-based financial statement model and a set of rules-based accounting standards. The initial effects of such an application have been studied by Valentinetti and Rea (2011), who assessed the fit between the XBRL Italian GAAP Taxonomy and the traditional annual reports of Italian non-listed companies. In a sample of 264 companies, they found an average number of Elements of Special Attention (ESAs) equal to 7.16 per firm, which corresponded, in relative value, to 4.84% of general misfit. While the Balance Sheet and Income Statement revealed a minimum

level of misfit (4.12% and 3.85% on average, respectively), the highest value of misfit was retrieved from the Memorandum Accounts (32.52% on average). They also examined the differences in the aggregation of data between firms' reporting practices and the taxonomic hierarchy, and they found that the sample companies reported more disaggregated information than the taxonomy structure. This confirms the different level of aggregation in accounting items between the taxonomy and firms' financial statements.

4.2 The US

4.2.1 Financial reporting environment

In contrast to Italy, where regulation is based on a civil law system, US regulation is based on a "common law" system, which means that US accounting regulations are generally issued by independent accounting institutions, and only marginally written in law.

The main accounting model applied in the US is based on the US Generally Accepted Accounting Principles (US GAAP), a set of accounting standards that govern the preparation of financial reports by nongovernmental entities. Over the years, the evolution of such principles has been set by several institutions, such as the American Institute of Certified Public Accountants (AICPA), the Public Company Accounting Oversight Board (PCAOB) and the Securities and Exchange Commission (SEC), which has statutory authority to establish financial accounting and reporting standards for listed companies under the Securities Exchange Act of 1934. Currently, the most prominent authority in setting US GAAP for public and private companies is the Financial Accounting Standards Board (FASB), supported by the Financial Accounting Foundation (FAF) and the Financial Accounting Standards Advisory Council (FASAC).

The rules and procedures for reporting under GAAP are complex and provide firms a great deal of flexibility in preparing their financial statements. This point is reflected by the enormous number of "pronouncements" issued over the years, which are aimed at supporting companies' practices in accounting for each of the different transaction types in a consistent manner. Hence, the recent issue of the FASB Accounting Standards Codification, which reorganised the thousands of US GAAP pronouncements into roughly 90 accounting topics and displays all the topics using a consistent structure. It also includes relevant Securities and Exchange Commission (SEC) guidance that follows the same topical structure in separate sections in the Codification (http://www.fasb.org/cs/ContentServer?c=FASBContent_C&pagename=FASB%2FFASBContent_C%2FNewsPage&cid=1176156318458).

The US GAAP framework represents the main accounting model in the US. In recent years, however, several US institutions have been paying attention to a possible movement towards the international convergence of accounting standards. FASB believes that there is demand for international convergence, driven by investors' desire for high-quality, internationally comparable financial information that is useful for decision-making in increasingly global capital markets. Hence, a collaborative effort has been made by FASB and the International Accounting Standards Board (IASB) to both improve US GAAP and IFRS and to eliminate

the differences between them (http://www.fasb.org/jsp/FASB/Page/SectionPage&cid=1176156245663). Additionally, in November 2008, the SEC published a proposed roadmap for the possible use of IFRS by US filers beginning in 2014 that identified several milestones which, if achieved, could lead to the use of IFRS by US issuers (http://www.fasb.org/cs/ContentServer?c=Page&pagename=FASB%2FPage%2FSectionPage&cid=1176156304264).

4.2.2 XBRL taxonomy development

In September 2006, after an initial period of activity as a committee of the AICPA (the American Institute of Certified Public Accountants), XBRL US, Inc. became a separate non-profit association. As a representative of the US jurisdiction of XBRL International, its mission is to support the implementation of XML business reporting standards through the development of taxonomies for use by the US public and private sectors, with the goal of interoperability between sectors, and to promote XBRL adoption through marketplace collaboration (see http://xbrl.us/Pages/default.aspx).

The SEC undertook the introduction of the XBRL format for financial reporting in the US in two main phases.

First, the Voluntary Filing Program (VFP), launched in 2005 by the Proposed Rule 33-8496 issued on September 27, 2004 (see http://www.sec.gov/rules/proposed/33-8496.htm), followed by the Final Rule 33-8529 issued on March 16, 2005 (see http://www.sec.gov/rules/final/33-8529.htm), encouraged US companies to voluntarily submit their annual and quarterly reports (10-Ks and 10-Qs) in the XBRL format. According to the SEC, the program was intended to evaluate the usefulness of data tagging and XBRL for registrants, investors, the Commission and the marketplace.

Then, in early 2009, the SEC itself launched a phased-in mandatory filing of XBRL financial statements for domestic and foreign companies over a 3-year period, by the Proposed Rule 33-8924 issued on May 30, 2008 (see http://www.sec.gov/rules/proposed/2008/33-8924.pdf), followed by the Final Rule 33-9002 issued on April 13, 2009 (see http://www.sec.gov/rules/final/2009/33-9002.pdf). As a first step, “accelerated filers” with a worldwide public float of more than $5 billion were required to submit supplemental XBRL documents, starting with Form 10-Q filings for quarterly financial statements ending on or after June 15, 2009. Subsequently, all other “accelerated filers” and other public companies (including foreign filers) were involved for fiscal periods ending on or after June 15, 2010 and June 15, 2011, respectively. At present, all US public companies must file their annual reports using XBRL.

Over the years, XBRL US, Inc. has issued a number of XBRL taxonomies based on US GAAP . The latest version accepted by the SEC is the 2012 US GAAP Financial Reporting Taxonomy, which consists of the following main modules (namely, “industry entry points”):

1) Banking and Savings

2) Brokers and Dealers

3) Commercial and Industrial

4) Insurance

5) Real Estate

Regarding its content and structure, the US GAAP Taxonomy provides a significant number of documents referring to each of the aforementioned modules. However, considering the Commercial and Industrial module (applied by most companies), it is possible to identify the following statements:

- Statement of Financial Position
- Statement of Income (further broken down into: *Including Gross Margin*, *Excluding Gross Margin Alternative* and *Additional Statement of Income Elements*)
- Statement of Other Comprehensive Income
- Statement of Shareholders' Equity
- Statement of Partners' Capital
- Statement of Cash Flows (further broken down into: *Additional Cash Flow Elements*, *Supplemental Disclosures* and *Direct Method Operating Activities*).

4.2.3 XBRL implementation model

Without a doubt, the American experience represents one of the most advanced examples of a successful adoption of XBRL for financial reporting. Moreover, in comparison to the Italian experience, the American initiative differs in one key area: the ability to create and submit customised extensions to the taxonomy. According to SEC Final Rule Release No. 33-9002, in fact, "[…] because filers have considerable flexibility in how financial information is reported under U.S. reporting standards, it is possible that a company may wish to use a non-standard financial statement line item that is not included in the standard list of tags. In this situation, a company will create a company-specific element, called an extension" (SEC, 2009). In particular, both participants in the VFP and mandated filers must prepare their XBRL formatted reports using the official US GAAP taxonomy, along with taxonomy schema and linkbase files of their self-defined extensions. In this way, companies take advantage of the full flexibility to enable their XBRL documents to parallel the official filing as closely as possible. This is also reflected in the implementation of the US GAAP Taxonomy, which is periodically revised to include new concepts related to common reporting practices. Beyond the addition of new concepts identified by US institutions (such as XBRL US, FAF, or FASB), companies have the ability to suggest new elements through the public comment process utilised for all new releases of the taxonomy. In this regard, it has been observed that "This process of extending the standard taxonomies will both serve to motivate filers to standardize their reporting, as well as to help the XBRL community to

create better taxonomies." (Debreceny et al., 2005).

The specific characteristics of XBRL implementation in the US lead us to consider two aspects.

First, US companies must prepare and submit their financial statements to the SEC according to the US GAAP Taxonomy, which is based on the financial statement models provided for US GAAP along with American financial reporting regulations. However, the taxonomy is designed to be inclusive of industry-level variations (that is, the "industry entry points" listed above) to meet the reporting needs of specific sectors. This means that both the accounting elements required by US regulations and a certain number of items reflecting the common reporting practices identified by FAF and FASB are built in to the taxonomy.

Second, the SEC requires US companies to extend the US GAAP Taxonomy when company-specific elements are not included. Therefore, each instance document submitted by companies is prepared according to a standard taxonomy schema and a set of private extensions. Moreover, filers must create and submit their own taxonomy hierarchy by means of various self-defined linkbases.

In summary, the application of the US GAAP Taxonomy is "open", in contrast to the application of the Italian GAAP Taxonomy in Italy. Furthermore, it is worth nothing that in the US, both the modular structure of the taxonomy itself and the application model chosen by the SEC allow considerable flexibility in reporting corporate financial information under the US GAAP framework. Several empirical studies confirmed the common practice of US companies creating and submitting private extensions to the US GAAP Taxonomy. For example, Boritz and No (2008) examined the extent to which US filers make use of taxonomy extensions in their instance documents. Analysing 68 companies in the VFP as of December 31, 2007, their findings show that all 304 filings contained extended taxonomies. On average, companies used 163 approved taxonomy elements and 190 extension elements, which represents 55.4% of the total elements used. This revealed that significant parts of the submitted instance documents were based on companies' own customised taxonomy extensions, hence the need to create customised taxonomies to enable their XBRL filings to parallel the official filing as closely as possible. However, the authors recognised that it was not possible to justify all the extensions noted due to the absence of any statement by the company or an assurance provider about the extensions. Boritz and No (2009) found 480 custom extensions, representing the 54.7% of the total items. They also found that the extensions were necessary due to the limitations of the standard taxonomy, even though the analysis also revealed that, in some cases, a custom extension was used instead of an available XBRL taxonomy element. More recently, Debreceny et al. (2011) analysed the extensions to the 2009 US GAAP taxonomy in a subset of XBRL filings made to the SEC. They examined in detail the monetary extensions made in filings by 67 large accelerated filers between April 15, 2009 and June 2011, and found that more than 40% of the extensions were unnecessary because appropriate elements already existed in the US GAAP taxonomy, and that some 30% of the extension elements were new concepts because the taxonomy did not include an element for a particular disclosure made by the filer. Additionally, a number of

extensions were the result of either aggregations (17%) or disaggregations (4%) of existing taxonomy elements.

5. Standardisation vs. customisation in XBRL: A discussion of the potential impact on the quality of financial information

The previous section has shown the different ways in which the application of XBRL for financial reporting may affect the extent of information reported by companies in their financial statements.

On the one hand, Italy decided to adopt a "closed" taxonomy: no private extensions are allowed, and companies must create and submit their instance documents according to a standard, pre-defined template. These requirements equalise the representation of financial information reported by companies; therefore, the application of XBRL standardises the content of financial statements required in each country.

On the other hand, the US decided to adopt an "open" taxonomy: companies are required, when preparing their annual reports, to extend the taxonomy by creating custom line items not included in the standard lists of tags if such tags are needed. This allows companies relative flexibility in reporting their financial information; therefore, the application of XBRL customises the content of financial statements to meet companies' reporting practices.

These empirical examples of adoption lead us to consider the dual power of XBRL to standardise or accommodate financial information. Many scholars argue that it is impossible to create a unique taxonomy that covers all financial reporting standards and needs internationally, as financial reporting standards and practices vary from country to country and from industry to industry, even at the firm level (Bovee et al., 2002; Cohen, 2004; Debreceny et al., 2010; Doolin and Troshani, 2004). Therefore, XBRL application entails a trade-off between customising, to better parallel existing paper reports, and compromising, to more closely match accounting standards (Cohen, 2004). Similarly, it has been observed that a trade-off exists between the comprehensiveness of a taxonomy, which allows firm- and industry-specific information, and standardization, which improves cross-sectional comparability (Wagenhofer, 2003). Again, the application of XBRL raises the question of allowing preparers flexibility to communicate the unique attributes of their organization while recognizing the need of users for readily comparable data (Richards and Tower, 2004).

After analysing the factors related to the application of XBRL to financial reporting, it is interesting to discuss how standardisation and customisation, both of which are achievable with XBRL, may affect the quality of the financial information reported by firms.

As shown in Figure 2, standardisation leads to full comparability of financial information because data are tagged against a common, agreed-upon taxonomy. It has been observed that if every supplier of information speaks a common language of disclosure by using the same taxonomy, users will be able to use that information in a productive way (Debreceny and Farewell, 2010). Indeed, the collection, extraction and comparison of every single piece of information would be easier and faster, as analysts could rely on a common set of accounting concepts represented by the taxonomy. Such a choice, however, would stand in contrast to

long-established reporting practices adopted by individual firms. This means that certain detailed information traditionally reported by firms (because of their particular characteristics or industrial sector) would be lost, as the taxonomy applied could not be aligned with the same level of detail provided by firms. More specifically, the application of a standard taxonomy on a blind basis causes a loss of information when firms usually prefer to report more disaggregated data than the taxonomy structure allows.

Conversely, customisation meets firms' reporting practices, and, in turn, preserves idiosyncratic financial data. In this way companies can not only customise accounting labels but also include desired sub-totals or presentation. However, many problems can arise from the wide-spread use of extensions. As noted by Bartley et al. (2010), extension errors often cause serious errors in financial statements, and they can distort the interpretation of XBRL data input into analytical software. Additionally, there is a high risk of reducing the comparability of companies' financial statements, as relevant efforts should be made to match different accounting labels used by different firms. The proliferation of custom tags may hinder financial statement analysis to the extent that a preliminary step is required to select which elements among the diverse customised extensions should be included in the calculation of financial indicators. Hence, this could force analysts to read the original financial statements and notes to interpret each of the extension elements.

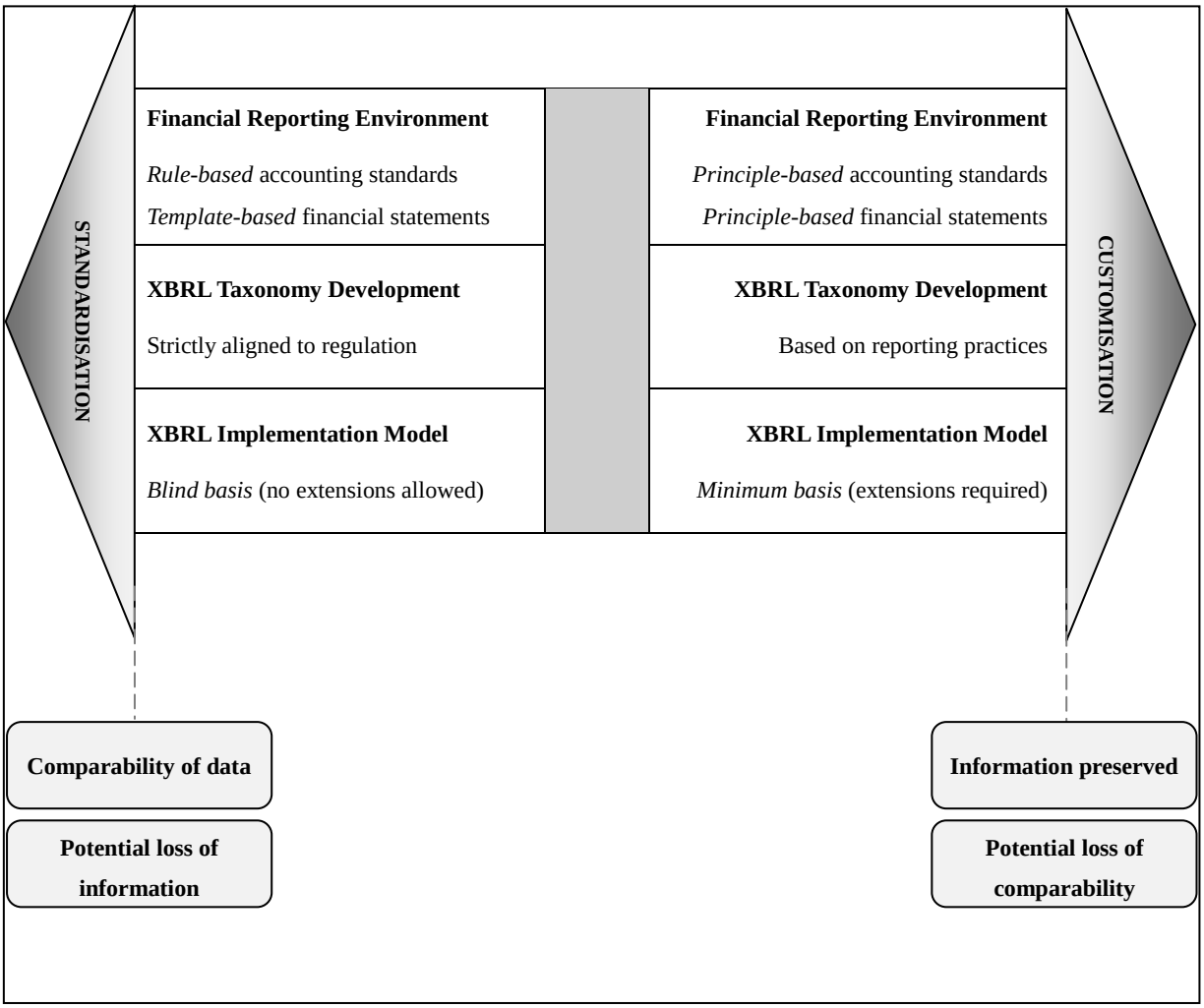

Figure 2: Standardisation vs. customisation with XBRL: Potential impacts on financial information

6. Concluding remarks

To date, the widespread, global adoption of XBRL represents a revolution in financial reporting. Based on XBRL's expectations of "better, cheaper and faster" financial communication (Cunningham, 2004; Hoffman and Strand, 2001; Hucklesby and Macdonald, 2000), many institutions across the world are taking advantage of the electronic format for different purposes. However, one challenge faced by regulators when deciding to apply XBRL is the question of whether to allow preparers the flexibility to communicate the unique attributes of their organisations while recognising users' needs for readily comparable data (Richards and Tower, 2004). Indeed, it should be noted that XBRL "allows, but does not require, a great deal of flexibility in the way that entities report their performance information" (Debreceny et al., 2010). We have analysed this issue in depth, discussing the dual power of XBRL to standardise and/or customise financial reporting. Specifically, two main aspects have been considered: the factors addressing the application of XBRL for financial reporting (i.e., the financial reporting environment, taxonomy development and

XBRL implementation model) and the potential impact of its application on the quality of financial information (i.e., comparability and loss of information). Requiring the application of a "closed", rigid taxonomy (customised extensions not permitted) leads to the complete standardisation of financial information. This, in turn, causes the full comparability of financial data but also the loss of customised information. Requiring the application of an "open", flexible taxonomy (customised extensions permitted or required) leads to the customisation of financial information. Detailed information can be preserved at the cost of the potential loss of comparability. However, reality suggests that the strict application of these two patterns is not obvious, as each environment has unique characteristics that regulators should take into account when deciding to apply XBRL.

One interesting example of XBRL application is found in Spain . Spanish listed companies must prepare and submit their financial statements to the CNMV (Comisiòn Nacional del Mercado de Valores) according to the IPP Taxonomy (Información Pública Periódica), which closely reflects the financial statement models regulated by the CNMV circulars of 1/2005 and 1/2008 for the introduction of IFRS in Spain. This means that only the accounting items required by the Spanish regulation on IFRS adoption are included in the taxonomy. Additionally, the CNMV does not allow Spanish companies to extend the IPP Taxonomy to represent firm- or industry-specific accounting items. Each instance document submitted by companies must be prepared according to a standard and rigid taxonomy schema. In summary, it can be observed that the application of the IPP Taxonomy is "closed", just as the Italian GAAP Taxonomy is closed in Italy. It should be noted, however, that in Spain, both the taxonomy and the financial statement model provided by national regulations are rigid and hierarchically structured. No "flexible zone" is available for companies' reporting practices. In other words, the accounting schemas required for the annual report of Spanish listed companies are closed ab origine, despite being based on a set of principles-based accounting standards, the IAS/IFRS .

Another interesting example is Singapore's Accounting and Corporate Regulatory Authority (ACRA), which requires companies to prepare and submit their Annual Return filings in XBRL (visit http://www.acra.gov.sg). Although the main aim of the regulator is biased towards the standardisation of financial information, the filings must be prepared applying a "self-extending" taxonomy, described as follows:

> *The ACRA taxonomy is based on the premise that no company should tag any data or extend any taxonomy and important industry specific data should be in the single taxonomy. The self-extending ACRA taxonomy allows:*
>
> - *core data that is common to most entities and of interest to most users to be captured specifically, and*
> - *other data to be captured under a flexible classification that will allow for efficient manual extraction.*
>
> *The self-extending taxonomy concept utilises a simple user-described tuple structure to capture in a single element the exact description used by the*

> *company in its financial statements as well as that specific value associated with it. This concept eliminates taxonomy extensions and the need for companies to acquire taxonomy building software or to even understand the meaning of taxonomy. Through this, it also eliminates the need for the company to tag data or understand XBRL instance documents.*
> *A company inputs data into FS Manager that is tagged to the ACRA taxonomy. If a specific item is not present in the ACRA taxonomy, a company then describes that specific item based on its classification using the various user-described fields in the ACRA taxonomy.*
> *Whenever possible, a company should use the prescribed fields in the FS Manager. The user-described fields should not be used for items of the same or similar concept as that of the prescribed fields.* (ACRA, 2012)

The challenge faced by XBRL in terms of the standardisation and customisation of financial information is fundamentally about the ability of taxonomies to capture information at the same level of disaggregation provided by firms. One possible solution is the definition of a mandatory common base taxonomy, which should be as general as possible to be applied to all firms operating under a specific regulation. In this way, the comparability of data is preserved at least for the common set of accounting concepts included in the taxonomy. In other words, although the definition of customised concepts may drill down financial information at the industry- or firm-level, comparability can be restored by rolling up the amounts associated with the custom tags into the sum associated with their parent account (Bovee et al., 2002). Another useful solution is the creation of standardised sub-categories for specialised industries derived from a common foundation. This "modular" approach would lead to a substantial decrease in companies' extensions, thanks to the definition of industry taxonomies that map to standard taxonomies and constant adaptations and extensions (Debreceny et al., 2005).

In conclusion, the question of whether the benefits of additional flexibility offset the costs associated with the lack of uniformity in disclosure and assurance in these disclosures needs to be further addressed (Plumlee and Plumlee, 2008). Can XBRL standardise or customise financial information? The answer is yes to both, depending on how it is applied by regulators and institutions in each context. Will XBRL be applied to standardise or customise financial information? This question is open for future research.

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