Excellence In Services International Conference EISIC
Formerly Toulon-Verona Conference, founded in 1998

Can digital financial reporting really enhance transparency in capital markets? The case of the XBRL Italia ESEF Project for the banking and insurance industries

Antonella Malinconico, Prof.
Department of Law, Economics, Management and Quantitative Methods
University of Sannio – (Benevento, Italy)
e.mail: malinconico@unisannio.it

Eugenio Virguti, Dott.
XBRL Italy
Department of Law, Economics, Management and Quantitative Methods
University of Sannio – (Benevento, Italy)
e.mail: eugenio.virguti@unisannio.it

Keywords: Capital markets, Digitalization, Financial Reporting, Regulation, XBRL, Taxonomies, Bank, Insurance.

1. Introduction

A higher transparency in capital markets is one of the goals set forth by regulators of the European financial markets. A pivotal role in this process, within the European Union, has been played by the *European Securities and Markets Authority* (ESMA) by means of the EU Directive 2013/50, which amended the EU Directive 2004/109 (so-called *Transparency Directive*). The new Directive prescribed that all consolidated Annual Financial Reports related to periods beginning on or after January 1st 2020, should be prepared by listed companies via the single electronic format *Inline XBRL*.

The rationale behind such regulation lies with the need to facilitate communication of financial information and enhance access to, analysis and comparability of accounting and financial data produced by the European Union listed companies, through the use of automated tools that may allow for a standardized and prompt processing of corporate information by investors and supervisory authorities.

The paper means to investigate into the primary obstacles that, during this transition phase, may hinder a fully-fledged harmonization and comparability of financial information, and some of the possible solutions identified.

2. The ESEF project and the use of XBRL to foster transparency in the EU capital market

In order to harmonize and ensure comparability of digital financial information produced by companies listed on the EU and UK regulated markets, ESMA issued a Regulatory Technical

Standards (RTS), thus laying the ground for a new, single electronic reporting within the EU: the so-called European Single Electronic Format (ESEF).

The EU Regulation 815/2019 (ESEF Regulation) that followed, meant to meet the need to foster the digitization of financial reporting cycles through the introduction of new technologies, lays down the obligation, for the EU and UK listed companies, to prepare their Annual Financial Reports by utilizing Inline XBRL (for IFRS consolidated reports) or xHTML (in the case of listed companies not belonging to groups) as from the period ending on 31.12.2020, a deadline that was eventually postponed by one year in almost all European countries because of the Covid 19 pandemic.

XBRL stands as the acronym for eXtensible Business Reporting Language, that is an "extensible" language designed for presenting and exchanging financial reports in an electronic format. It belongs to the family of markup languages which allow users to edit document formats if required.

It is an offshoot from the more popular eXtensible Markup Language (XML), a framework designed for building markup languages used to describe, merely by means of Unicode text, any set of structured data and established worldwide as a result of the success of the internet and related World Wide Web Consortium (W3C).

The idea behind the XBRL standard is that, by using XML technology, any data of a financial report can be tagged, and therefore linked to a set of additional information (the so-called "metadata") that provide the "meaning" of data.

The adoption of such protocol enables to automate the preparation, presentation and transmission of financial reports, although most importantly XBRL allows for the automated acquisition, exchange and processing of financial reports, provided that all stakeholders involved utilize common taxonomies and own software tools that are able to read and interpret XBRL documents (Bergeron, 2003).

The single electronic communication format iXBRL (that is, xHTML + XBRL), combines the coding of annual financial reports to an electronic format, via the xHTML feature, where xHTML represents the "human readable" part with the XBRL language, which is the "technical" side. The xHTML coding enables the publication of financial reports on a web page, having the ability to show images, charts, tables, formatted text, references, etc. The XBRL coding, on the other hand, allows "tagging" of financial statements items, linking them to the taxonomies set forth by regulations in force, which in this case are related to the ESMA taxonomies that, generally speaking, transpose concepts from IAS/IFRS accounting standards.

Technically speaking, an XBRL financial report embraces two components: an XBRL taxonomy to refer to, that defines the report structure, and an instance document that includes all financial data of a specific organization and a reference period.

A "taxonomy" is a dictionary of "concepts" or elements, which enables preparers to tag their financial statements in order for them to be processed and analyzed. Coding and transcoding of any XBRL document demands for usage of the same language, that is sharing the same taxonomy. This entails *inter alia* an improvement in the mutual trust that should exist amongst issuers and receivers in any communication process. A taxonomy of "concepts" should be preliminarily defined and shared by the community of stakeholders involved in the information exchange process (ie. authorities and regulators, Public Administration, financial analysts, investors, etc.); it is the only way to define items clearly and unequivocally. The development of the standard is managed and maintained by XBRL International, a not-for-profit organization incorporated by institutional and private entities for the purpose of promoting on a global scale a flexible structure for coding and presenting accounting data which is shared and approved by all interested stakeholders worldwide.

3. Literature review

Information asymmetries, that typically create distortions in capital markets, may be somehow reduced by means of a public regulations that require entities to disclose financial information (Lev 1989). All researches conducted on the matter agree that both compulsory (Greenstein e Sami, 1994; Hagerman e Healy, 1992; Leuz e Verrecchia, 2000), and voluntary (Healy et al., 1999; Heflin et al., 2005; Welker, 1995) disclosure of corporate information have an impact on reducing information symmetries.

The digitization of financial reporting processes and the implementation of protocols that convert financial reports into machine-readable objects that allow for a fast and automated data processing, heavily contributed to the mitigation of information asymmetries mentioned earlier. Specifically, multiple researches on the impact of XBRL proved it to be the best solution worldwide for financial reporting and they all highlighted a significant impact on transparency and reliability of financial information to the benefit of market participants (Pinsker and Li, 2008).

By virtue of such protocol financial information is easily and promptly accessible and comparable, making data analysis easier and accurate for foreign investors (Baldwin & Trinkle, 2011) (IFRS Foundation, 2017). It also makes it easier for users to compare financial reports and identify differences in accounting policies when they are discretional (Hodge et al., 2004), in addition to improving investors' ability to promptly find relevant information (Dong et al., 2016).

Further, the implementation of XBRL provides for the opportunity to enhance the frequency and transparency of the distribution process of financial information (Debreceny et al., 2001), which is fundamental in a context of high volatility.

If we take into exam all provisions adopted by capital markets before and after the introduction of XBRL, empirical evidence demonstrates that the standard contributes to improve the financial markets information environment; its utilization is strictly correlated to a reduction in volatility of yields, to a decline in abnormal cumulative absolute yields and of unusual bid-ask spreads (Zhenyang et.al, 2014).

In other words, XBRL contributes to a reduction of information asymmetries and to an improvement of market parameters such as transparency and quality of financial reporting (Efendi et al., 2014; Tan & Shon, 2009;). The larger the size of the company, the stronger the impact on information asymmetries from the utilization of XBRL (Yoon et. al., 2011).

4. The obstacles to the standardization of information: experimentation on the financial statements of Italian companies

The need to standardize information for the purpose of foster comparability and understandability, in addition to efficiency and cost-effectiveness, finds several obstacles in the implementation of the XBRL protocol, that may be summarized as follows (Caserio and La Rosa, 2010):

- uncontrolled proliferation of taxonomy extensions;
- no stakeholders' involvement;
- XBRL implementation costs;
- prevailing of formal rather than substantive facets;
- audit of documents approach needs be changed.

In such a context, the issue of taxonomy extensions is critical. While on the one hand extensions meet the need for providing a more accurate view of each single company, on the other hand they have to fit the limits of a taxonomy that, by definition, constitutes a standard coding of items that represents a significant aspect against the broader goal of ensuring comparability and harmonization. Conversely, the mere adjustment of the financial statements' items to the existing taxonomies would lead to an information gap, given the inability of standard taxonomies to grasp the level of detail desired by a company (Bovee et al., 2002).

As a matter of fact, inconsistencies may arise between taxonomies and extensions.

Some of the obstacles were brought to light by a field test conducted by the not-for-profit XBRL Italia Association, the University of Macerata, the University of Sannio and a sample of 12 companies, including banks, insurance undertakings and manufacturing corporations, for the purpose of assessing the level of fitness of ESEF taxonomies to the financial statements of Italian listed entities.

Participants were individually asked to tag their primary statements (ie. the ones initially required by the ESEF Regulation, namely the *Financial Position*, *Profit or Loss*, *Other Comprehensive Income*, *Cash Flows* and *Changes in Equity*), based on the ESMA Regulation provisions and taxonomies. The field test findings matched the working group expectations: in the absence of guidelines and given a standardized set of items to be tagged (given that Italian banks and insurance undertakings must comply with a standardized financial statements' set of items and layouts), issuers marked all financial statements' items in many different ways.

Specifically, the field test results showed that the application of the ESEF Regulation based on the ESMA taxonomies required an average customization rate of 35% considering all financial statements but the *Changes in Equity*, and all companies involved in the field test. The customization rate was defined as the ratio between all extensions required by the sample companies for each statement and the overall number of taggable statement items.

If we analyze data by industry, it was clear that the need for extensions was stronger for banks and insurance companies as compared to other types of entities. The estimated average customization rate was 45-50% for the *Profit or loss* and *Cash Flow* statements. Further, the customization rate seemed lower for multinational organizations as compared to companies with operations only on the Italian territory.

5. The XBRL adoption for the banking and insurance industries and Italy's solution as best practice

The 2019 field test findings spurred XBRL Italia into launching a project, together with the industry associations and supervisory authorities, which started off in February 2020 with the set up of working groups for the purpose of ensuring uniform extension tagging by banks and insurance undertakings (given the standard statements set forth by the Italian industry regulations), thus mitigating the non-comparability risk potentially caused by different extensions, anchors and taxonomies against identical concepts and financial statements items.

The XBRL Italia *ESEF Banks Working Group*. set up together with the Italian Bankers Association (ABI), Bank of Italy and 15 Italian banks representing 85% of Italian banks' total assets, worked on the definition of standard extensions to for the banking industry that should integrate ESMA core taxonomies and apply to the standard consolidated financial statements set forth by the Bank of Italy's Circular no. 262 of December 22nd, 2005.

Similarly, a parallel *ESEF Insurance Working Group* was set up with the cooperation of the Italian Insurance Companies Association (ANIA), the Italian insurance supervisory authority IVASS and all the Italian listed insurance groups in order to define the standard extensions and anchoring taxonomies to integrate the ESMA core taxonomy and aimed at safeguarding the uniformity of tagging of the insurance financial statements as per the ISVAP Regulation no. 7 of July 13th, 2007.

The manufacturing corporations Working Group, also coordinated by XBRL Italia with the help of the Italian Listed Companies Associations (Assonime), was only set up in order to assess any discrepancies in tagging of identical concepts in financial statements, given that the Italian manufacturing firms do not need to comply with a predefined set of items and layouts like banks and insurance companies. The largest 12 Italian corporations participated in the project and, given the

relatively low customization rate, the assessment only resulted in a comparison of tagging amongst all twelve organizations.

After a number of intensive working sessions, meetings and workshops, activities were completed after 16 months, in June 2021. The final results of the effort conducted in aligning the ESMA core taxonomy with the provisions set forth by regulators for preparing the banks and insurance financial statements are summarized in the chart beside: the statement of changes in equity required the largest number of extension, particularly for banks, which was in the range of a 88% customization rate, and for insurance companies with 71%. The reason for such very high customization rate lies with the multidimensional nature of the statement which makes it resemble the detail tables of the Notes to the financial statements, and with the diverse presentation required by the Italian regulations as opposed to the IAS/IFRS standards provisions (specifically with regards to IAS 1).

Final Results of the XBRL Italia ESEF Project				
	Banks	**Insurance companies**	**Manufacturing Corporations (*)**	**of which: Oil & Gas**
Financial Position				
- Number of taggable items	51	60	44	46
- Number of extensions required	17	21	9	2
- Customization Rate (%)	***33%***	***35%***	***20%***	***4%***
Profit or Loss				
- Number of taggable items	47	37	26	24
- Number of extensions required	27	18	10	7
- Customization Rate (%)	***57%***	***49%***	***38%***	***29%***
Cash Flows				
- Number of taggable items	51	44	44	52
- Number of extensions required	26	31	17	11
- Customization Rate (%)	***51%***	***70%***	***39%***	***21%***
Other Comprehensive Income				
- Number of taggable items	22	20	16	17
- Number of extensions required	9	6	5	3
- Customization Rate (%)	***41%***	***30%***	***31%***	***18%***
Changes in Equity				
- Number of taggable items	103	56	31	57
- Number of extensions required	91	40	9	12
- Customization Rate (%)	***88%***	***71%***	***29%***	***21%***
(*) For manufacturing firms an average of the taggable items for all companies involved in the project, since the financial statements for corporations are not as standardized as with banks and insurance companies				

The *cash flow* statement also required a very high customization rate, at 70% for insurance undertakings and 51% for banks, in this instance owed to the lack of a sufficient number of taxonomies related to the insurance and banking businesses as part of the ESMA core taxonomy that could allow Italian firms to properly tag said statements. The *profit or loss* statements followed with a customization rates of 57% and 49% for banks and insurance organizations and finally the *other comprehensive income* statement with rates of 41% and 30% respectively.

The taxonomy integrations defined by the working groups, which will be published on the XBRL Italia[1] web site, supplements ESMA's core taxonomy via the definition of standardized *extensions*

[1] https://it.xbrl.org

and *anchoring taxonomies* which should be applied by all listed banking and insurance groups in order to tag those items for which no corresponding concepts could be found amongst the ones included in the ESMA/IFRS core taxonomy provided for by the ESEF Regulation.

The outcome of the effort made by the working groups, which was meant to preserve the uniformity in the dissemination of financial information, now allows market participants to rely on the support of a consistent taxonomy to help with corporate communications based on the new electronic format. XBRL Italia shall also be in charge of maintaining taxonomy extensions in the future if required by regulators.

6. Conclusions and implications

The need to standardize financial information for the purpose of enhancing comparability and understandability, in addition to cost-effectiveness and efficiency, has led regulators to introduce an obligation to utilize XBRL to boost transparency in capital markets via the approval of the ESEF Regulation.

This obligations is expected to significantly advance the digitization process in disclosing corporate information, both financial and non-financial, which shall not only speed up the collection and analysis of data, but most importantly shall improve the quality of information provided. Other benefits that should be taken into account include the higher degree of accountability normally associated with the utilization of said protocol, which may in turn contribute to ameliorate stakeholder engagement processes.

The Regulators's objective to harmonize tagging of financial reports in order to ensure their standardization and hence an actual comparability may find its obstacles, however, in the definition of a taxonomy that may fit all industries.

Given the large number of participants to the language definition process, in order to find an acceptable compromise between all feasible solutions available, it is mandatory to implement a negotiation process to define, together with all stakeholders, a number of devices to make taxonomies comparable by specifically focusing on concepts bearing an identical meaning. Further, taxonomies that apply to a specific industry in one country should also be shared throughout the EU, together with any changes or extensions or anchoring taxonomies. Conversely, the existence of different "dictionaries" in different countries, not shared with the financial reporting community EU-wide, may lead to different tagging in different industries and different countries, even against one and the same, or a similar, concept.

References

Baldwin, A. A., & Trinkle, B. S. (2011), «The Impact of XBRL: A Delphi Investigation», in The International Journal of Digital Accounting Research, n. 11.

Bovee M., Ettredge M.L., Nelson K., Srivastava R., Vasarhelyi M.A. (2002), «Does the Year 2000 Xbrl Taxonomy Accommodate Current Business Financial- Reporting Practice?», in Journal of Information Systems, vol. 16, n. 2, pp. 165-182.

Caserio C., La Rosa F. (2010), XBRL e trade-off del reporting: verso una possibile soluzione ?, in (a cura di) Zanbon S., XBRL e informativa aziendale: traiettorie, innovazioni e sfide., Milano, Franco Angeli.

Debreceny, R., & Gray, G. L. (2001), «The production and use of semantically rich accounting reports on the Internet: XML and XBRL», in International Journal of Accounting Information Systems, n. 2.

Dong, Y., Li, O. Z., Lin, Y., & Ni, C. (2016), «Does Information-Processing Cost Affect Firm-Specific Information Acquisition? Evidence from XBRL Adoption», in Journal of Financial and Quantitative Analysis, n. 2.

Efendi, J., Park, J. D., & Smith, L. M. (2014), «Do XBRL filings enhance informational efficiency? Early evidence from post-earnings announcement drift», in Journal of Business Research, n.6.

Greenstein M., Sami H., (1994), «The impact of the SEC's segment disclosure requirement on bid– ask spreads», in The Accounting Review; Vol 69, n. 1.

Hagerman R. L., Healy J.P., (1992), «The impact of SEC-required disclosure and insider-trading regulations on the bid–ask spreads in the over-the-counter market», in Journal of Accounting Public Policy, Vol .12, n. 3.

Healy P.M., Hutton A., Palepu K.G., (1999), «Stock performance and intermediation changes surrounding sustained increases in disclosure. », in Contemporary Accounting Research; Vol. 16, n. 3.

Heflin F. L., Shaw K. W., Wild J. J., (2005), «Disclosure policy and market liquidity: impact of depth quotes and order sizes. », in Contemporary Accounting Research; Vol. 22, n. 4.

Hodge, F. D., Kennedy, J. J., & Maines, L. A. (2004), «Does Search-Facilitating Technology Improve the Transparency of Financial Reporting? », in The Accounting Review, 79(3).

IFRS Foundation. (2017), Conceptual Framework for Financial Reporting. London: IFRS Foundation.

Leuz C., Verrecchia R. E., (2000), «The economic consequences of increased disclosure», in Journal of Accounting Research, Vol. 38, Supplement: 2000.

Lev B., (1988), «Toward a theory of equitable and efficient accounting policy», in The Accounting Review, Vol. 63, n. 1.

Pinsker, R., & Li, S. (2008), «Costs and Benefits of XBRL Adoption: Early Evidence», in Communication of the ACM, 51(3).

Tan, C., & Shon, J. (2009), «XBRL and Its Financial Reporting Benefits: Capital Market Evidence», in The International Conference at The University of Kansas, Lawrence.

Welker M. (1995), «Disclosure policy, information asymmetry and liquidity in equity markets», in Contemporary Accounting Research, Vol. 11, n. 2.

Yoon, H., Zo, H. and Ciganek, A. P. (2011), «Does XBRL adoption reduce information asymmetry? », in Journal of Business Research, Vol. 64, n.2.

Zhenyang B., Manabu S., Fumiko T. (2014), « The Impact of XBRL Adoption on the Information Environment: Evidence from Japan», in The Japanese Accounting Review, n. 4.