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# FINANCIAL SUPERVISION REPORTING AND XBRL

Benefits of adopting XBRL for financial supervision reporting

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### OVERVIEW

Financial supervision reporting requires two key enablers: data accuracy and the ability to meet various reporting requirements simultaneously. It is difficult to execute supervisory objectives effectively if the data lacks accuracy. And, needless to say, it is extremely difficult to recapture the accuracy if it is lost at the submission stage. From a reporting requirements perspective, both international and national reporting requirements need to be met and harmonized. In this paper, we discuss how XBRL can be applied to meet the needs of financial supervision reporting.

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### DATA ACCURACY

The most important requirement for financial supervision reporting is data accuracy. Reported data, for legal reasons, is expected to be:

- accurate for arithmetic purposes
- calculated accurately based on the required definition
- preserved during the data transfer process

A related consideration is the cost of gathering and validating submitted data. The cost of checking data accuracy after submission (i.e. post-validation) is much greater than the cost of checking data before submission (i.e. pre-validation). For example, most supervisory bodies check for data accuracy after receiving the data, relying on the checking function within their databases. If issues are detected, submitters are asked to resubmit corrected data. However, this process requires a series of dialogues between submitters and supervisory bodies, which consumes more time and human resources on both sides as a result. The more time needed to prepare accurate data, the more difficult it is to execute supervisory activities in a timely fashion—and the higher the risk of a delayed response to a financial crisis.

Under the traditional financial reporting scheme, the meaning of each item had been communicated mainly through paper documents. More specifically, the meaning of data or interpretation by the tick-the-box method was prepared by supervisory or industry groups and had been provided to financial institutions, a submitter side of the financial report. However, this method required substantial effort to communicate the meaning of data between supervisors and submitters.

A pre-validation model that facilitates accurate data reporting on the submitter's side would improve data accuracy while driving down costs. The first step would be for supervisors, as the data collectors, to provide submitters with an accurate list of items and their meanings that could be applied to the data and validated before submission. XBRL is designed for this purpose.

To facilitate pre-validation, XBRL offers a Reference linkbase and a Formula module. The Reference linkbase provides a means of linking to authoritative references which therefore ensures accurate definition of the data being reported. When the Formula module is implemented, it enables submitters to self-check and self-correct arithmetic functions and business rules before submission. Best of all, in addition to data checking rules, the Formula module includes a facility for detecting errors and communicating information to submitters—in math-like terms—about how to fix errors *before* submission. While the Formula module would initially cost more to

implement, its ability to streamline the pre-validation clerical process would result in cost savings for both supervisors and submitters.

For example, the Federal Deposit Insurance Corporation (FDIC), which applied the Formula module for the first time in the world, significantly decreased errors associated with quarterly Call reports and drastically reduced the time required to make the data availability for public use. Similarly, at the Bank of Japan (BOJ) and Bank of Spain (BdE), implementing the Formula module resulted in a decrease in data errors and a reduction in manpower required to report data. The BOJ surveyed its submitters regarding the implementation effect of XBRL. Submitters strongly recognized the advantages—enabled by the Formula module—associated with increasing the accuracy of their submissions and mitigating the clerical burden. This response was even more prominent for small- and medium-sized financial institutions, which were often constrained by a lack of human resources available to prepare accurate reports.<sup>1</sup>

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## REPORTING REQUIREMENTS

In addition to data accuracy, supervisors and submitters require reliable, flexible reporting options. Of particular importance is the harmonization of international reporting requirements and reporting requirements for each country. XBRL offers a solution through its development, maintenance, and use of reporting taxonomies.

In financial supervision, international reporting requirements and each country's reporting requirements must be reconciled. For example, the Committee of European Banking Supervisors (CEBS) initially required financial institutions to submit the solvency report, based upon the Basel II agreement, according to the different requirements stipulated by each country within the European Union (EU). Traditionally, various methods were employed to meet these multiple reporting requirements. However, problems were identified, such as variation of reporting content, different reporting formats, and submission of separate reports to each supervisor for each business site.

The CEBS was cognizant of the problems. Using XBRL early on, they developed and continually improved extensions to represent each country's particular reporting requirements. These extended taxonomies, representing common reporting requirements, were developed by an international team. The initiatives for reporting with XBRL are called COREP (Common Reporting, Basel II) and FINREP (Financial Reporting, IFRS). They have been achieving steady results. The reporting contents may vary, for instance in "solo" (country dependent) or "consolidated" (common in Europe) scope. Of great benefit is the fact that, when extending the taxonomies by making full use of the characteristics of XBRL, it is possible to verify the quality of taxonomies and to identify the requirements in common. This is achieved by performing a comparative analysis on each country's extensions, since no change can be made to the base definition of taxonomies, and identifying the differences between the base and individually extended parts.

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<sup>1</sup> Wada, Y. (2009). Bank of Japan's XBRL Project – the Latest Report and Future Plans. *19th XBRL International Conference*. Paris.

Recently, the European Parliament, in order to ensure the uniform application of the Supervisory Directive, decided that the new European Banking Authority<sup>2</sup> (EBA) shall develop draft technical standards regarding IT solutions to be applied for such reporting.

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## CONCLUSION

XBRL can increase data accuracy by empowering submitters with the ability to pre-validate their own data. Pre-validation reduces errors in submissions to supervisors, reduces the time to prepare and validate submission reports, and reduces demands on human resources for both supervisors and submitters.

In addition, XBRL enables supervisors to harmonize international and national reporting requirements in an automated fashion. XBRL offers not only taxonomies that encapsulate the various reporting requirements, it also offers the ability to compare those taxonomies and identify items in each that mean the same thing. Automated comparison reduces the burden on human resources to perform this comparative analysis manually.

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## ABOUT THE AUTHORS

**Yoshiaki Wada** is currently Senior Manager of the Global Business Development Group of NTT DATA Corporation's Public & Financial IT Service Company. In this capacity, he is responsible for the development of a wide range of business possibilities using XBRL and the other recent computer technology. Before joining NTT DATA, Mr. Wada was the Director of the Financial Systems and Bank Examination Department of the Bank of Japan until July 2010. In the BOJ, he was responsible for the operation of the bank's financial database system and for leading the development of XBRL-based data collection systems, which went live in February 2006, and have been upgraded to the second generation in March 2010. Previous experience includes time with the Information System Services Department, the Secretariat of the Policy Board, and the Budget and Management Office of the BOJ. He has a BA in economics from Hitotsubashi University. Mr. Wada is a member of the XII Board of Directors and is the official liaison to the XBRL International Best Practices Board.

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<sup>2</sup> The European Banking Authority (EBA) is set to replace the CESB by the end of 2010. From the CESB website – <http://www.c-esb.org/>