
The Electronic Reporting of Financial Information in Japan

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Japanese organizations are making increasing use of XBRL, the standard language for the electronic reporting of financial information. XBRL has an important role to play in improving credit risk management and in the development of Japan's securities markets at a time when its financial system (and its banks, in particular) are having to accept major changes. Hopefully, government departments such as the Financial Services Agency will make full use of this leading-edge technology.

1. A New Phase in the Development of the Electronic Reporting of Financial Information

The spread of the Internet has enabled users to access a wide range of information both quickly and easily. It is also much easier for Internet users to access corporate financial data now that many companies post such information on their Web sites (e.g., as part of their efforts to foster relations with investors). Investors, analysts, and companies both financial and nonfinancial can now access a wide range of financial data on prospective investments, borrowers and business partners much more easily than ever before.

Nevertheless, the electronic reporting of financial information is still in its infancy. If the new technology that is now emerging is adopted more widely, it should be possible to do far more sophisticated things, including some that currently pose major problems.

One of these problems is the fact that information posted on the Internet is textual data that has to be viewed and recorded on paper or copied and pasted to another application or reentered in an Excel file before it can be used for the desired purpose. Similarly, information in the body of PDF documents cannot be extracted and reused in data format. In other words, although information can be transmitted electronically and displayed on a user's screen in the form of a digital signal, any further processing can only be done in the same way as with analog data.

It is, of course, sometimes possible to download data. However, even in such cases, different companies may use different data formats, and the terms may also be defined differently. Users therefore have to process manually any financial data they download before they can carry out a comparative analysis.

Nor are financial data the only information that users need to carry out an analysis: they also need the figures included in footnotes, endnotes and the body of the text as well as nonnumerical information. In order to extract the information they need from the mountain of information that companies provide in various formats and to produce comparative tables (to give just two examples), users need both considerable time and training. This kind of labor-intensive work is also prone to errors.

Such problems could be largely overcome if companies reported their financial information in a standard, reusable, digital format. Moreover, if the Internet addresses where companies display this information were listed in a kind of cyberspace telephone directory, users would be able to access the information they need by going to these sites, using the analytical tools provided, and displaying the results in table or graph form—all virtually instantaneously and automatically, and all the result of Internet technology.

An international standard language that allows users to process financial information in this way on the Internet is gaining increasing acceptance: XBRL (eXtensible Business Reporting Language).¹

The XBRL project was begun by Charles Hoffman, a Washington CPA, in April 1998. In August 1999 his idea was adopted by twelve companies, ranging from accountancy firms to information vendors and system developers, along with the American Institute of Certified Public Accountants (AICPA) as members of the XBRL Steering Committee and formed the basis of a project code-named XFRML.

In April 2000, at a press conference in New York, the Committee changed the project's name from XFRML to XBRL. As the FR ("Financial Reporting") in XFRML indicates, the original emphasis was on standardizing the expressions used in financial accounting disclosure documents. However, as it became clearer that the language could be used for a wider range of business purposes (e.g., for standardizing general ledgers and other internal accounting documents), the letters BR ("Business Reporting") were added. The Committee's 1st International Conference, which was

¹ For further details about XBRL, see <http://xbrl.org/> and <http://www.xbrl-japan.org/>.

held in London in February 2001, marked the fact that XBRL had become adopted on an international scale. Finally, in December 2001 the latest version, XBRL 2.0 Specification, was published.

Work on developing and promoting XBRL is currently being carried out by an international consortium, XBRL International, with roughly 170 member companies and organizations from over 20 countries. Also represented, with the same status as a national committee, is the International Accounting Standards Board (IASB).

2. The Introduction of XBRL in Japan

1) From the establishment of XBRL Japan to the first XBRL International Conference in Japan

From the outset, Japanese specialists had followed with interest the development of XBRL and helped to introduce it in Japan. This process gathered momentum in April 2001, when XBRL Japan was established (largely with the support of the Japanese Institute of Certified Public Accountants).

Some good examples of the efforts to promote the use of XBRL in Japan were announced at the 6th XBRL International Conference, held in Tokyo in November 2002. Various examples of the uses of XBRL in Japan were highly appreciated by non-Japanese participants.

The following is an outline of the main developments in this field in Japan.

2) The decision by the Tokyo Stock Exchange to adopt XBRL for its TDnet system

(1) TDnet

The Tokyo Stock Exchange's TDnet (Timely Disclosure network) system was developed to enable companies listed on the Exchange to meet their timely disclosure obligations. The system plays an important role in the timely disclosure to investors of (1) decisions on capital changes, (2) events such as accidents and litigation, and (3) earnings results as part of the process of ensuring fair securities prices. As one of the innovations in its upgraded TDnet system, which is due to come into operation this spring, the Exchange is hoping to publish the first page of company summary earnings reports in XBRL format.

In the existing system, which has been operating since April 1998, the process for companies to enter and display timely disclosure information is the following.

- ① Companies listed on the Exchange enter and register timely disclosure information via dial-up networks.
- ② Companies that have published documents explain their contents to Exchange staff (thereby providing a double check that the online documents are genuine).
- ③ Published documents are output on the TDnet terminals of media companies that subscribe to the service.
- ④ Companies listed on the Exchange receive confirmation that documents they have submitted have been published.
- ⑤ Published documents can be read by the general public on either the Exchange's Web site or by using TDnet's database service. (In the former case, only information from the previous two days is accessible; in the latter case, users can access information from further back. Information can be read from the morning after the day it is input.)²

In order to improve distribution and access on the existing system, disclosure documents are converted to PDF format. This enables timely disclosure of both images and text. Typed documents are scanned and converted to PDF format, and companies can also submit documents on diskettes. Currently 70%-80% of companies submit their information online.

Companies can submit the first page of their summary earnings reports (i.e., the section containing key data such as sales and recurring profits) in CSV³ format to enable users to use the data. This is done by making the page available as an attached file. Currently some 60% of companies provide information in this way, which is made possible by software distributed to them by the Exchange.

(2) New TDnet system

The Exchange is planning that it should not only have a facility to enable companies to input information via the Internet (rather than, as at present, by dialing

² Under the implementation ordinances of the Securities and Exchange Law, price-sensitive information is considered to have been disclosed once it has been made available to the public for at least 12 hours by at least two national media (e.g., newspaper and television) companies.

³ An abbreviation of "comma separated values." By separating data by commas, it is possible to a certain extent to indicate how the data should be handled.

up) and try to extend its customer base⁴ by upgrading the system's processing power, but also make the first page of company summary earnings reports and revisions to earnings and dividend forecasts available in XBRL format when the upgraded version of TDnet comes into operation in the spring of this year. When it does implement this, it will provide companies with software that will enable them to produce new disclosure documents in XBRL and PDF format simultaneously.

As part of the process of preparing for the switch to XBRL, the Exchange is having to deal with the fact that different sectors use different technical terms in their financial statements. In the initial stages of the switch, it will probably be the information submitted by companies to the Exchange that is converted to XBRL format, and users will probably have to wait until a later stage for the documents that are made available to them to be converted.

Also planned, from fiscal 2003, is the conversion to XBRL format of the financial statements appended to company summary earnings reports. The input interface will probably be developed to work with EDINET,⁵ the system used for legal disclosure. Although EDINET documents are currently displayed in HTML format, the adoption by EDINET of XBRL would mean that companies would probably use XBRL to produce both their financial statements and their summary earnings reports. Timely disclosure by means of TDnet might then even be accepted in lieu of unscheduled filings, which are the current way of meeting legal disclosure requirements.

3) XBRL as a means of improving financial intermediation and credit risk management

(1) Developments at the Bank of Japan and in the banking industry

The Bank of Japan is trying to set up a market for asset-backed commercial paper⁶ in order to make it easier for smaller companies to raise capital. However, such a market would depend on a credit risk database of such companies, and XBRL could play a useful role in developing one.

⁴ Originally only companies listed on the Exchange could input information into TDnet; but the Exchange is now considering allowing nonlisted companies to do this as well as whether to allow companies to input not only timely disclosure information but also general information for investors and publicity material.

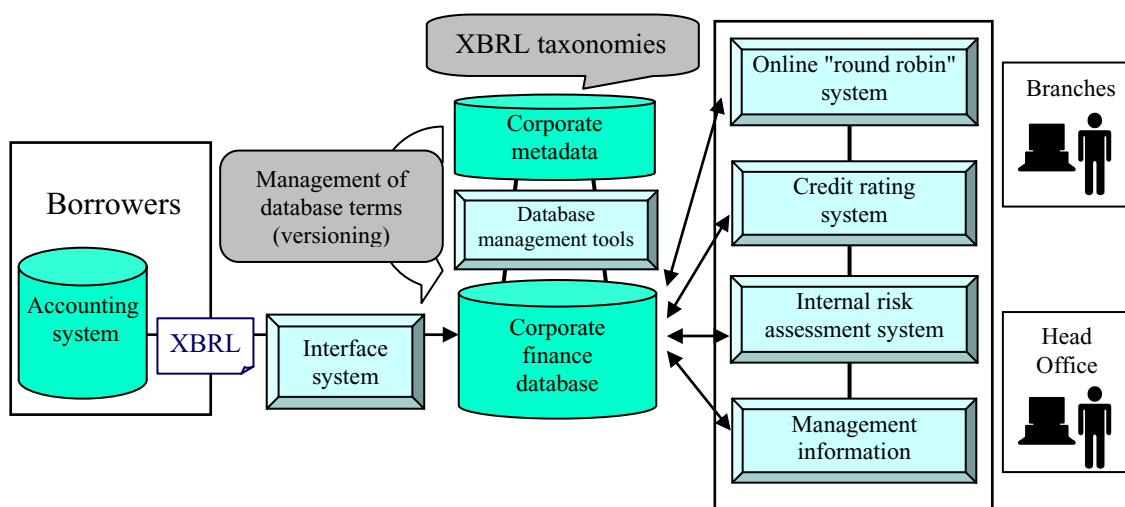
⁵ "Electronic Disclosure for Investors' NETwork," a system similar to the US "EDGAR" system of electronic disclosure which started in June 2001.

⁶ The assets used would be receivables.

Meanwhile, in the private sector, SMBC is planning to use XBRL to keep a record of letters of credit used for trade finance and has announced that it could also be used for loan syndication and securitization.

Similarly, MTFG, which is creating a credit risk management database using paper-based financial information, has decided to improve its credit risk management by providing customers with tools to input financial data from their accounting systems in XBRL format instead (see Figure 1).

Figure 1 Use of XBRL in MTFG's Credit Risk Management Database



Source: MTFG.

(2) Creation of a joint credit database

Another interesting developments in the field of credit risk management is the Tokyo Institute of Technology's Center for Research in Advanced Financial Technology's project to develop a joint credit database using XBRL and the Internet. The aim of the project, in which the private sector is also involved, is to develop (1) a joint credit database that will facilitate the loan decision-making process and ensure that the economy receives an appropriate supply of credit and (2) a scheme for collecting and using the data via the Internet.⁷

As part of this project, in June 2002, CRAFT, in collaboration with Toshiba, Tokyo Shoko Research and Fujitsu, produced the world's first credit control system that instantaneously and automatically calculates the probability that a company will fail

⁷ This was announced by Naoshi Uchihira at the 14th CRAFT Seminar (held on 20 December 2002).

by collecting data in XBRL format from the Internet and using CRAFT's own scoring model.⁸

Banks, leasing companies and trading houses, for example, have their own (or their industry's own) credit databases from which they access data independently and analyze it using their own models. As a cheap and more efficient way of analyzing credit data, however, CRAFT's joint credit database inputs information from financial statements posted on the Internet, from credit agencies and from company announcements in a "credit information directory center" which enables users to automatically access from many different sites the data they need by means of Internet technology. CRAFT has also made its credit risk management model available together with software that enables users to instantly calculate the probability that a company will fail from the data they have collected.

The credit information directory center enables users to locate and access credit information on the Internet. Similar to a telephone version of the yellow pages, it is not a repository of actual credit information. The fact that credit information about the same company may be held by several different sources means that the information has to be collated and linked. In addition, the fact that many small unlisted companies have the same name means that ID numbers have to be used to keep track of them.

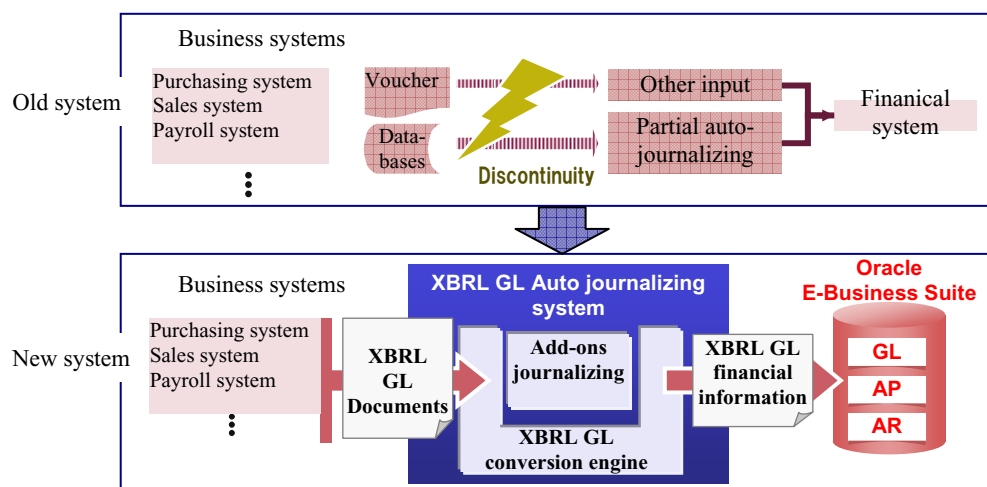
(3) Other noteworthy developments

As in other countries, XBRL is likely to be used increasingly in the field of tax collection. For example, shortly before the XBRL International Conference was held in Tokyo in November 2002, the National Tax Administration Agency announced on 8 November that it would adopt a format that uses XBRL for corporate income tax reporting.

An example of the use of XBRL by an ordinary nonfinancial company in Japan is that by Wacoal in its general ledger. The company has announced that it will use XBRL to exchange data between its internal finance, personnel, purchasing and inventory control systems. Wacoal has 50 affiliates all over the world, so XBRL will enable it to collate their financial and other data in its general ledger (see Figure 2).

⁸ The model uses the CRAFT scoring method, a method of constructing credit risk assessment models developed jointly by Toshiba and CRAFT.

Figure 2 Use of XBRL in Wacoal's General Ledger



Sources: Wacoal and Hitachi.

3. XBRL's significance and prospects

1) The US view

Partly because of the increasing interest in disclosure that has followed the collapse of Enron and WorldCom, XBRL is expected to play a more important role than ever. US companies are increasingly aware of the importance of accurate disclosure not only because disclosure requirements have been tightened following the enactment of the Sarbanes-Oxley Act but also because of the need to foster investor relations.

Disclosure needs to be not only full but also fast and user-friendly. As the investing public becomes increasingly diverse, it is increasingly important for disclosure documents to be easily understood. As a quick and efficient means of reporting and analyzing financial information, XBRL is well suited to the needs of our age.

The Securities and Exchange Commission adopted an encouraging stance towards XBRL from the very start. In October 2000 at a meeting of the AICPA, for example, the Commission's then chairman, Arthur Levitt, expressed the hope that the XBRL project would be successful. In February 2001 Morgan Stanley's announcement that it had submitted the balance sheet, income statement and cash flow statement appended to its annual report on Form 10-K in XBRL format for the first time was the result of the fact that the Commission had shown its willingness to accept submissions in this format.

Similarly, at a hearing of the Senate Banking Committee into the collapse of Enron, Robert E. Litan of the Brookings Institution expressed the view that fostering the use of XBRL was a key objective on the road to improving disclosure and that the Commission should support the XBRL project, seek to increase awareness of its importance, and encourage companies to become involved in the process of standardization. Moreover, he suggested that the Commission should perhaps require companies to submit their financial statements to EDGAR in XBRL format by a certain deadline as a means of speeding up its adoption.⁹

2) The significance of XBRL in Japan

XBRL may well have an even more important role to play in Japan than in the United States. This is because it can help to bring about the transition that Japan's financial system needs to make from an industry-based financial model to a market-based one.¹⁰

First of all, banks need to change their approach to lending: instead of attaching supreme importance to collateral and lending at rates that fail to reflect the true credit risk, they need to realize that credit risk analysis is crucial. Here, as this report has suggested, XBRL can play an important role in helping to manage credit risk more efficiently. Moreover, Japan's megabanks are trimming their loan portfolios by making greater use of syndicated loans—an area where, as the experience of other countries indicates, XBRL can also help.

Also, as would be expected in a country where credit risk has assumed a significance that cannot be ignored, any improvements in managing it will be warmly welcomed not only by banks but also by other financial institutions as well as bond investors and nonfinancial companies.

Also essential, if Japan is to make the transition to a market-based financial model, is the development of its markets for securities and securitized products. As this report has suggested, XBRL can help in the securitization process by making it easier to gather and analyze information on the underlying loan assets. There is also, as was pointed out in a December 2002 report by a subcommittee of the Financial System Council, an urgent need to disclose more information on governance, risk and

⁹ U.S. Senate Committee on Banking, Housing, and Urban Affairs, Oversight Hearing on "Accounting and Investor Protection Issues Raised by Enron and Other Public Companies," 14 March 2002.

¹⁰ According to the Financial System Council's report "Chukiteki Tenbo Shita Wagakuni Kin'yu Shisutemu no Shorai Bijon" [A Medium-Term Blueprint for Japan's Financial System] of 20 September 2002.

Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A). Another important issue identified by the report is the need to simplify and shorten disclosure procedures, and fuller disclosure on a quarterly basis is recommended.

As an increasing amount of information is disclosed, XBRL will become increasingly important as a means of extracting information from the mass of information available and analyzing it. Moreover, as well as helping to speed up the disclosure process, it should also make it easier for companies to meet their obligation to disclose information more frequently. As in the United States, XBRL should help to bring about a revolution in corporate disclosure.

3) Prospects

(1) The impact of standardization on society and the economy

Financial information about companies is used not only by companies, investors and lenders but for a host of other purposes, including (see above) tax collection. XBRL's impact on society is therefore likely to be considerable. For example, the fact that it enables companies to gather information about their business more quickly and accurately than before may speed up considerably the process of gathering and analyzing macroeconomic data, thereby enabling government to formulate economic policies more quickly and effectively. In addition, it may help to prevent money laundering.

Nor should XBRL be seen in isolation: together with other standardization technologies such as ISO15022 (the standard for securities transactions), MDDL (a tool for converting market data to XML format), RIXML (a tool for converting research information to XML format) and NewsML (a tool for converting news to XML format), it will help to revolutionize both financial and nonfinancial transactions.

(2) Fostering the use of XBRL in Japan

Although much has already been done to foster the use of XBRL in Japan, this process needs more support—not least because of the need for Japan's financial system to make the transition from an industry-based financial model to a market-based one.

For example, although the planned use of XBRL by the Tokyo Stock Exchange's TDnet (from the spring of this year) to gather corporate information marks a major advance, it will hopefully also be used as soon as possible by the Exchange to disseminate information to investors.

Although there are plans to publish not just the first page of company summary earnings reports but also complete summary reports in XBRL format, this could be achieved more easily if EDINET (the system which companies use for the electronic reporting of financial information in order to meet their legal disclosure obligations) could also handle XBRL, as this would ensure that more companies used it. Although companies will have to use EDINET to meet their legal disclosure obligations from 1 June 2004, the system can currently handle only HTML documents.

A report published in July 2002 by an advisory panel to the then Minister for Financial Services, Hakuo Yanagisawa, had the following to say in relation to XBRL: "A number of countries have been eager to adopt leading-edge technologies in the administration of their financial services. For example, in some countries companies have been encouraged to use the latest systems to report financial information electronically to the regulator. Similarly, even without going as far as this, the authorities can foster the use of such technology (e.g., for corporate disclosure) simply by indicating their acceptance of its use. ...By demonstrating their awareness of and interest in such technologies, the authorities will hopefully increase private-sector awareness of them and thereby help to make the Japanese market more competitive."¹¹

¹¹ Shoichi Royama, "Kin'yu Shisutemu to Gyosei no Shorai Bijon" [A Blueprint for Japan's Financial and Administrative Systems], Zaikei Shohosha, 2002.