
Developments in the Electronic Reporting of Financial Information Using XBRL

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The computer language XBRL (eXtensible Business Reporting Language) is being increasingly used in international business as a means of dramatically increasing the disclosure and use of financial information. Japan has been no exception. Following the adoption of XBRL by the Tokyo Stock Exchange in its TDnet system in April 2003, a private-sector service offering the financial documents of all Japanese listed companies in XBRL format was started in November 2003. With the Bank of Japan and the National Tax Administration Agency due to adopt XBRL, the use of XBRL in Japan for the online reporting of financial information can be expected to increase steadily.

1. Private-Sector Initiative to Offer the Financial Documents of All Japanese Listed Companies in XBRL Format

1) What it means to offer financial information in XBRL format

Securities markets now attach great importance to the reliability of financial information (particularly in the wake of the Enron scandal). However, such information should be not only reliable: it should also be disclosed quickly and in a user-friendly format.

By its very nature financial information exists to enable its users to make decisions about the future. Therefore, unless it is disclosed soon after the accounting event it describes, it will decline in value. Similarly, unless it is submitted in a form that is conducive to analysis, some of its original value will be lost.

It is with these aims in mind that interest in the computer language XBRL has grown in recent years. XBRL is a technology that enables companies to automatically process financial data items by tagging them with standardized names and definitions that can be automatically recognized by a computer from the moment the items are input by the company to the time when they are analyzed by users—a process known as straight-through reporting (STR).

A certain amount of progress has been achieved in the online reporting of financial information in Japan as a result of the introduction of EDINET¹ (for the filing of legally required financial documents such as the equivalent of US annual reports on Form 10-K) and TDnet (the Tokyo Stock Exchange's network for the timely disclosure of company information). From June 2004 companies will be required to use EDINET to meet their legal disclosure obligations (e.g., by submitting the equivalent of US annual reports on Form 10-K and other filings). Similarly, when the June 2003 amendment to the implementation ordinances of the Securities and Exchange Law comes into effect in February 2004, companies will be able to gain exemption from the so-called "12-hour rule"² by publishing price-sensitive information on a timely disclosure system such as TDnet. This means that such systems will become increasingly important.

Steady progress is therefore being made in the online reporting of financial information in Japan. However, there are a number of outstanding issues concerning the use of XBRL. For example, EDINET documents are currently displayed only in HTML format, and there is no indication of when they will be made available in a user-friendly format such as XBRL. Also, since April 2003 Japanese companies have started to submit the first page of their summary earnings reports (i.e., the one containing key results such as sales and recurring profits) to the Tokyo Stock Exchange in XBRL format, but the Exchange itself has yet to post this information on TDnet in the same format. Similarly, it will probably be some time before the Exchange is able to handle the rest of company summary earnings reports (i.e., the actual financial documents) in this format.

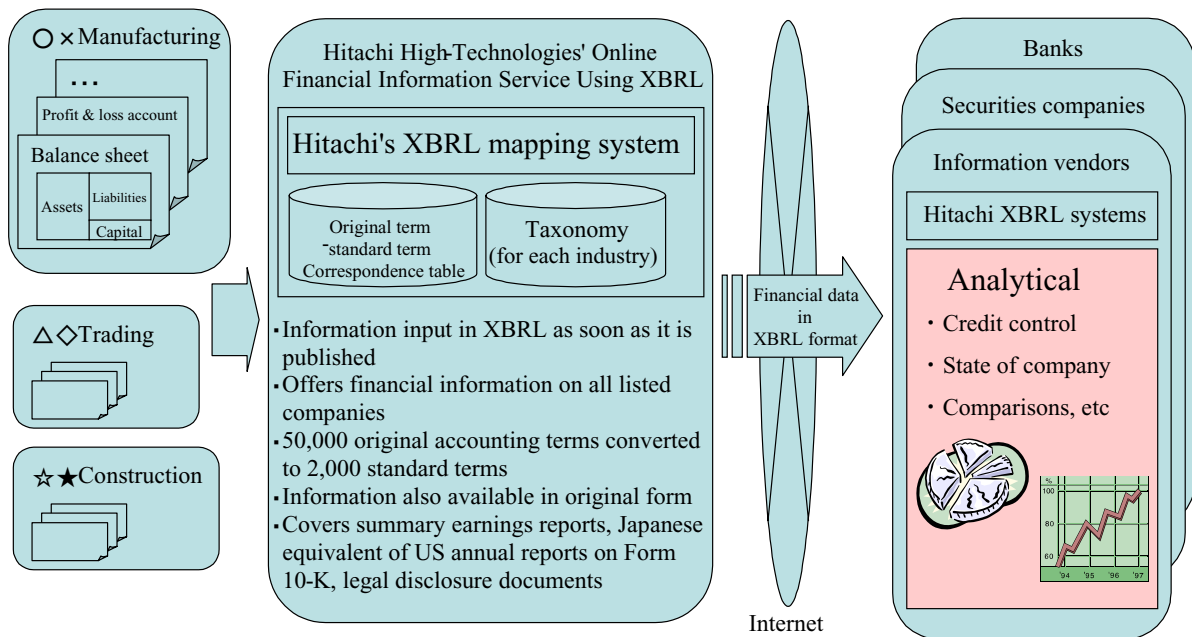
2) An outline of the new service

Amidst all these developments there has been a private-sector initiative to improve the current situation. This involves inputting the contents of financial documents and summary earnings reports as soon as they are published into a computer system that not only converts them to XBRL but also enables customers to access the information in the format of their choice. Provided customers are using XBRL-compatible analytical tools, they can import the data and use it to carry out different types of analysis and produce tables automatically (see Figure 1).

¹ "Electronic Disclosure for Investors' NETwork," a system similar to the US "EDGAR" system of electronic disclosure which started in June 2001.

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.

Figure 1 Online Financial Information Service Using XBRL



Source: Hitachi.

The new service, which has been available from Hitachi High-Technologies since 1 November 2003, is offered to all (as of fiscal 2002, 4,700) Japanese companies required to publish their financial documents—i.e., listed companies (including those listed on the new venture capital markets or only on a regional stock exchange) and companies registered on the JASDAQ as well as nonlisted companies required to do so by the Securities and Exchange Law.

The financial documents they are required to publish include their balance sheet, profit and loss account, schedule of the cost of goods manufactured, capital account statement, statement of appropriation of earnings, statement of surplus, and the notes.

One of the obstacles to a standard method of processing financial information in XBRL format is the fact that different companies and industries use different terms for the same accounting items. For example, while some companies record "cash" and "deposits" separately in their accounts, others record them as "cash and deposits," "cash & deposits," "cash deposits," "cash in hand and in bank," etc., etc.

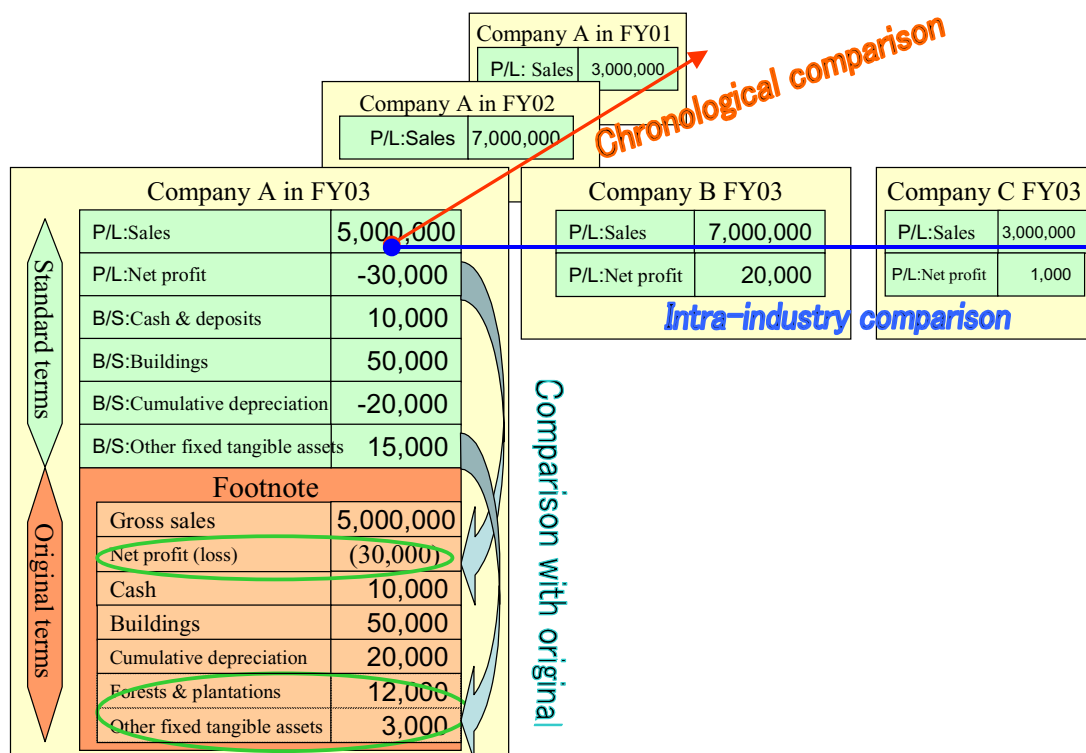
In its collection and dissemination of corporate financial data, TDnet has tried to encourage companies to standardize their terminology. However, persuading all of them to use the same terms is no easy matter as they all have their own traditions, which they are reluctant to abandon.

The new system therefore replaces each of these variations with a single synonym. In the case of "cash" and "deposits," for example, each of the above variations is replaced by "cash & deposits." Similarly, some companies indicate deductions by a minus symbol while others use parentheses. The system replaces all such occurrences with a minus symbol. Thus "net profit" and "net profit (loss)" are replaced by "net profit," and a minus symbol is prefixed to the number concerned.

As far as possible, the system maps all such variations into standard terms that form the output viewed by users. As a result, the 50,000 or so accounting terms used by different companies are replaced by a mere 2,000 or so standard terms.

If a user wants to know what terms were used in the original financial document, he can view these in the form of footnotes (see Figure 2). Users can choose to view documents either in their original form or with standardized terms other than the system's default terms. Flexibility of this kind is one of the advantages of using XBRL.

Figure 2 Using XBRL to Improve Financial Analysis



Source: Hitachi.

2. User-Oriented Financial Information

While a disclosure system that uses XBRL and standardized accounting terminology may be an ideal, a fully operational system is not yet on the horizon. The cost of introducing and standardizing such a system would be considerable not only for the taxpayer and the stock exchanges but also for individual companies.

Not only that: if the timely disclosure system and the standards adopted by the Tokyo Stock Exchange were different from the system and standards adopted, for example, by the Osaka Securities Exchange, users would find it difficult to compare the financial information displayed on the two systems. However, the circumstances of each market are different, and there are limits to how quickly cooperation can proceed.

Not only does the new system avoid such problems: it also makes the form in which disclosure is made more user-friendly. Although the form in which companies disclose financial information should, ideally, depend on users' needs, in practice it has often depended largely on either the companies themselves or the regulatory authorities and the stock exchanges. If it had depended on users, a situation where terms such as "cash" have multiple variants would never have developed.

No doubt this situation is partly the result of the fact that companies have felt that all they needed to do was comply with what the authorities and the stock exchanges required them to do and given little thought to user convenience (e.g., the fact that data presented in different formats and using nonstandardized terminology can be difficult to compare). So long as everything was analog, such relatively minor variations may not have mattered; but, now that data needs to be imported electronically and analyzed quickly, it needs to be in an unambiguous, system-friendly form.

Now that an innovative technology like XBRL is available, it would be a shame to wait until the authorities, the stock exchanges and individual companies had all adopted it and standardized their accounting terminology—hence the present venture to offer users a leading-edge service that takes account of the disparities that still exist. Any decision about the format in which to present information to users should be based on user needs. If users want to use a format other than the default, XBRL gives them the flexibility to do so and a certain degree of control over disclosure.

3. Reporting Financial Information in XBRL Format: The Future

1) Using XBRL to file tax returns

From 2004 Japanese taxpayers will be able to file their tax returns online. Companies filing their tax returns will be allowed to submit their financial documents as attached files in XBRL format. The new system will start in February 2004 in Nagoya with income tax returns and VAT returns from sole traders. This will then be extended to corporate income tax returns, corporate VAT returns and to payment of all tax items as well as some applications and reports in March 2004 in the same region. Finally, in June 2004, the system will be extended to the whole of Japan.

Although tax returns will, of course, continue to be accepted in other formats, the fact that both companies and users are becoming increasingly aware of the benefits of XBRL means that it is likely to be used increasingly for this purpose. Currently, tax advisers receive their clients' tax documents in either analog or digital format, then input these as financial data in digital format and then print out and send the returns in analog format to the tax office, which then has to input the data in digital format. Once taxpayers are able to submit their returns online, the whole process will be digitized and all those involved will realize just how useful XBRL can be.

This means that, at least in Japan, not only listed companies but also small, unlisted companies can be expected to submit their financial documents in XBRL format. The financial documents that companies submit along with their tax returns are also used for credit analysis by financial institutions and the country's 52 credit guarantee corporations, so these institutions can be expected to make their credit analysis systems XBRL-compatible, thereby increasing the efficiency of the whole credit analysis process.

2) Bank of Japan's membership of XBRL Japan

Another interesting development in the use of XBRL in Japan is the fact that the Bank of Japan became a member of XBRL Japan, the organization responsible for standardizing and promoting the language in Japan, in October 2003.

The next step, judging by developments in the United States and Australia, is that the Bank will probably require financial institutions to submit their annual results and daily trial balances in XBRL format.

In the United States, the Federal Deposit Insurance Corporation (FDIC), the Federal Reserve Board (FRB) and the Office of the Comptroller of the Currency (OCC) each require the financial institutions they supervise to submit quarterly reports, which they use to carry out their duties more effectively. The actual layout of these reports is decided by the Federal Financial Institutions Examination Council, a formal interagency body empowered to prescribe uniform principles, standards, and report forms for the federal examination of financial institutions.

These reports, which used to be made on the telephone and are still called "call reports," are now submitted in the form of electronic files. However, once the reports have been submitted, the agencies concerned have to input the numerical data manually to make sure that there are no statistical aberrations. At the moment, each bank uses a different software package, so adding any new items involves considerable extra work for both them and the agencies.

The FDIC has therefore decided to rationalize the whole process of collecting, processing, checking and disseminating data by using XBRL. The project is now under way, and the switch to the new system is due to take place in September 2004. Once the new system is in operation, it should be possible to shorten the process, which used to take at least two weeks from receiving the reports to publishing the collated version, to five days in the best case. Also, it will be easier to make changes, and it will be possible to check in an instant whether data are inconsistent with either other data or past trends. This should speed up the work of the regulators considerably and eliminate many inefficiencies.

At the same time, the banks and savings and loan institutions themselves have started to switch to XBRL for their internal reports. This should reduce much of the administrative load they have hitherto faced in producing their call reports.

In Australia, the Australian Prudential Regulation Authority (APRA), which regulates the country's banking and insurance industries, adopted XBRL for the reports it receives from some 12,000 deposit-taking institutions in May 2002.

In Japan, if the Bank of Japan undertakes a similar project, more banks can be expected to use XBRL for their internal reports, and, eventually, banks could be expected to require companies applying for a loan to submit their financial documents in XBRL format.

3) XBRL's role in making Japan's securities markets and banking system more efficient

With the adoption of XBRL 1) in the new private-sector service for reporting the financial data of all Japanese listed companies, 2) by unlisted companies filing their tax returns online and 3) by the Bank of Japan and, eventually, by Japanese banks and their corporate customers (see above), there will be a quantum leap in the use of XBRL for the online reporting of financial information in Japan that will probably make the country the world's leading user of this technology.

The use of XBRL to provide financial information reliably, quickly and in a user-friendly format (see above) will help to make Japan's securities markets more efficient and reliable. Furthermore, Japanese banks have learnt from the mistakes that led to the country's bad debt problem and realize that they must take greater account of borrowers' cash flows and charge them a rate that is commensurate with their creditworthiness rather than based on the value of their collateral. XBRL should prove a valuable tool for analyzing borrowers' financial information in detail and for assessing their creditworthiness.

Syndicated loans also have an important role to play in this process by transferring risk and increasing banks' fee income. In the United States, XBRL is being used increasingly by members of loan syndicates to exchange and analyze information. In Japan, loan syndication has more than tripled during the past four years, so there is ample scope for the use of XBRL.

Let us hope that the growing use of XBRL in the online reporting of financial information will go a long way to make Japan's securities markets and banking system more efficient.