

# XBRL: One standard – many applications

46

by Bruno Tesnière, Richard Smith and Mike Willis



## Bruno Tesnière

Partner, Global XBRL Co-leader

Tel: 32 2 710 72 26  
Email: bruno.tesniere@be.pwcglobal.com

## Richard Smith

Director, Global Risk Management Solutions, UK

Tel: 44 20 7213 4705  
Email: richard.r.smith@uk.pwcglobal.com

## Mike Willis

Global XBRL Co-leader and Founding Chairman XBRL International

Tel: 1 813 351 2795  
Email: mike.willis@us.pwcglobal.com



XBRL is a universal information format which offers tremendous opportunities for the financial services industry in terms of cost reduction, efficiency gains and data analysis. XBRL can be used by banks to radically reduce the time and costs associated with key business processes such as credit analysis and monitoring, and streamline their own business reporting processes. XBRL also allows disparate information systems to communicate seamlessly with each other over the internet. This is something banks have aimed at for a long time; with the advent of XBRL they are finally able to achieve it.

### Financial information: Fuel for the financial services industry

There have been dramatic changes in how companies communicate with investors, customers and suppliers. The financial services industry is dependent on the quality and timeliness of business information, perhaps more than any other industry, as it is both a user and producer of such information. Today, in many banks management information is buried under a mountain of irrelevant figures or is presented as complex raw data, whilst external sources are rarely available in reusable formats. The collection, collation

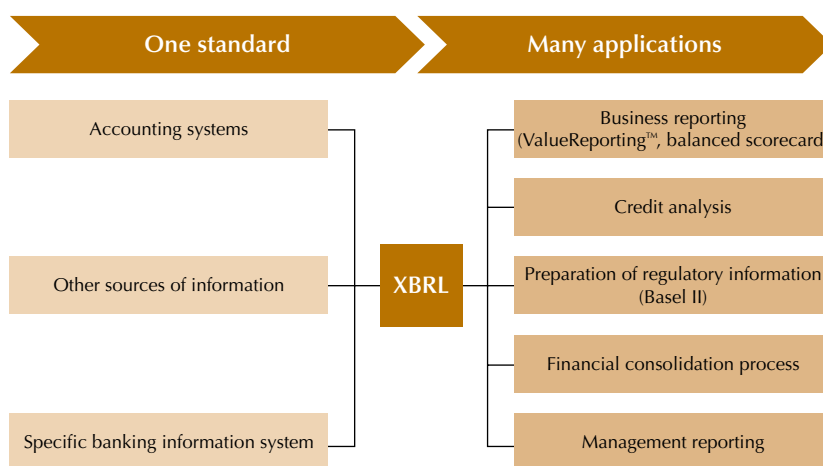
and formatting of the information needed for running the business can be slow, prone to error and extremely costly.

Proprietary data standards are often put in place for internal purposes but they require proprietary data translation schemes so that back-end systems are able to retrieve that information. Even less efficient, electronically delivered information on the web is today just a digital duplicate of a paper report; it is not possible to identify directly and therefore retrieve the information that is embedded

in these formats (html, pdf, doc, etc). The link between format and content can only be broken by manual parsing (search and retrieval) processes, which are labour-intensive, time-consuming and prone to inputting errors. These factors can drive the cost of producing information up to a level where, although the information is available, it is effectively redundant.

XBRL provides a solution to many of these problems by making the reported information more flexible for interested parties to use.

Figure 1 XBRL : One standard – many applications



Source: PricewaterhouseCoopers

## XBRL: One standard – many applications *continued...*

### So what exactly is XBRL?

Extensible Business Reporting Language, or XBRL, is a derivation of Extensible Mark-up Language (XML). XML, a platform-independent communication standard, has been designed to facilitate the exchange of information between applications through corporate networks or the internet. Supported by virtually all software vendors, XML is gradually imposing itself as the primary facilitator for transferring data over the internet and is now entrenching itself in enterprise applications. XBRL has been specifically designed to leverage XML technology to support the business reporting supply chain.

#### Figure 2 What XBRL is not:

You may already have heard about XBRL. The word is certainly getting out and, unfortunately, so are the misconceptions. Below is a list of what, exactly, XBRL is *not*:

- XBRL is *not* a detailed universal chart of accounts, but rather a GAAP/industry-sector oriented tagging scheme or language;
- XBRL is *not* a new accounting or auditing standard;
- XBRL is *not* designed only for US GAAP financial reports but rather oriented to a range of territories as well as IFRS (International Financial Reporting Standards formerly IAS) business reporting; and
- XBRL is *not* a requirement to conform to a specific financial reporting template.

#### *XBRL International*

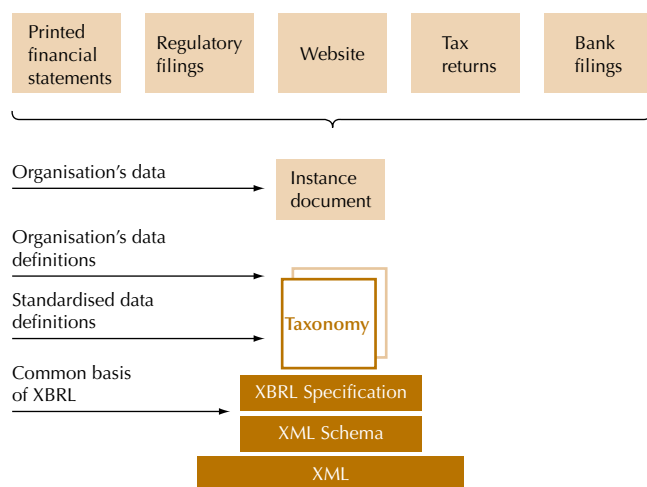
XBRL International is a non-profit international consortium consisting of approximately 170 leading companies, associations and government agencies around the world and fulfilling several roles such as development, liaison and education. The consortium has built an XML based specification for business reporting as well as standardised data definitions for different financial reporting frameworks, for use in ledger entry reporting (XBRL General Ledger), credit reporting, performance press releases, risk reporting, regulatory filings and tax filings.

PricewaterhouseCoopers has recognised the benefits that XBRL could bring to its clients and to the financial markets and has dedicated resources supporting the efforts of the XBRL consortium. Since the inception of XBRL, PricewaterhouseCoopers has taken a leading role in its development<sup>1</sup>.

<sup>1</sup> For more information, visit [www.xbrl.org](http://www.xbrl.org)



Figure 3 XML/XBRL architecture



Source: PricewaterhouseCoopers

Fujitsu, Moody's, Reuters Group, PricewaterhouseCoopers and many others. Members of XBRL International are currently developing taxonomies for different accounting standards such as IFRS (IAS) and US-GAAP, and where industries, such as financial services, are significant these taxonomies are also expected to be tailored to meet the specific requirements of that industry.

### XBRL for the Financial Services Industry

Because of the high volume of financial information prepared and processed by the financial services industry, it is in a unique position to leverage XBRL technology. While there are numerous applications where XBRL can support business processes, in this article we will take the opportunity to focus on three specific applications where XBRL can greatly support financial institutions in particular.

#### Credit analysis

Credit is the most fundamental risk that many financial institutions take and manage. Traditionally, credit processes within different business units are supported by stand-alone information systems and reporting sub-systems. These systems assist management in credit analysis, credit decision-making and limit

XBRL provides tags (context) that describe each element of data (content) in greater detail so that information can be understood and used by different information systems. For example, the turnover for a specific company, and that from its corresponding reporting period, will be included in tags, along with further information such as company name, country of origin, industry sector, year and so on. The tagging of data instructs the receiving system about the information being transferred and so the user, with the help of a software application, can locate the necessary information without leafing through numerous pages of financial

reports. As a result, banks are able to generate complex data queries and comparative and up to date analyses on a borrower's credit application information package at the touch of a button, something that is almost unimaginable today.

The tags are based on standard and uniform taxonomies defined and agreed through collaborative efforts of XBRL consortium members. XBRL International is made up of many of the world's leading accounting, technology, government and financial services bodies, including Morgan Stanley, Hitachi, General Electric, Microsoft, Deutsche Bank, Bundesbank,

## XBRL: One standard – many applications *continued...*

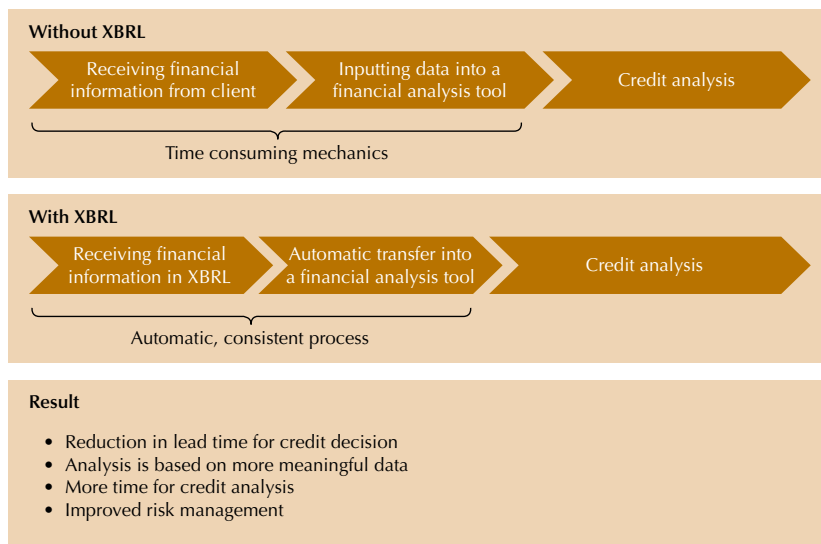
monitoring (see Figures 4 and 5). Transferring information from counterparties to in-house systems as well as from one stand-alone system to another normally requires inefficient, tedious and time-consuming re-keying and re-formatting of information. Such mechanical processes increase the risk of inputting errors and reduce the efficiency of credit assessment and monitoring. In many cases 80% of process time is allocated to data management with 20% left for analysis. XBRL can reverse this ratio, allowing greater time for valuable decision making. XBRL provides banks with a structure and procedure, allowing consistent analysis and reporting. It also helps ensure better data quality and data integrity, leading to clearer and more accurate business reporting.

Information received from borrowers can be directly recognised, manipulated and formatted, leaving credit risk managers to concentrate on credit risk analysis and management, not on collection of data.

### Operational risk management

Many banks are currently in the process of developing operational risk management methodologies for both internal economic capital evaluation purposes and meeting the New Basel Capital Accord requirements. For both, banks will need to collect detailed operational loss data. This data needs to correspond to the business

**Figure 4 XBRL and Credit Analysis**



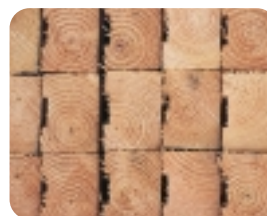
**Figure 5**

Many banking institutions in the US and Europe have adopted, or are planning the adoption of, XBRL data in their credit analysis process. The process re-design focuses on the transfer of financial data from the customer to the bank’s financial statement analysis tool. Without XBRL the process requires manual inputting of financial information. By employing XBRL the banks are expecting better decisions and significant cost savings. The lead time for credit decisions could also be drastically reduced to even a couple of hours by eliminating the manual mechanical steps.

lines defined by the Basel Committee as well as contain further information about the underlying loss events. It is important

that data is collected consistently across the organisation in areas such as date, description, event category, amount,





contributing causes and business line. Such consistent data collection is also key for external data sharing initiatives, which are currently being established.

Banks have also recognised the challenge of operational risk quantification in financial risk management. The main obstacle for the development of sophisticated risk quantification methodologies is the lack of detailed and high-quality data. A taxonomy using XBRL could offer a practical solution to allow consistent and structured collection and exchange of data by business areas and periods. Publishing operational risk reports leveraging common XBRL taxonomies enables consistency and re-use. XBRL has many of the facilities and advantages invaluable in supporting the development of operational risk management functions.

### Corporate reporting

Financial institutions are also under increasing pressure to fulfil more stringent external reporting requirements, as markets and regulators demand greater corporate disclosure and transparency. A key promoter of enhanced disclosure is the Basel Committee, which published its proposals in the New Basel Capital Accord under Pillar 3: 'Market Discipline'. In addition, IFRS implementation will also introduce greater transparency through enhanced disclosure requirements. Under

these circumstances, establishing integrity in external reporting is a key priority for banks<sup>2</sup>, and management needs to be confident as to the validity and accuracy of such data, much of which would not have been subject to independent

assurance. Within most banks the reporting environment is complex and data is provided by many different systems. XBRL allows the implementation of a more streamlined and efficient reporting environment.

#### Case Study: APRA

Australian Prudential Regulatory Authority (APRA) has implemented XBRL arrangements in collecting data from the entities that it regulates. XBRL has helped APRA to overcome challenges in an environment comprising six different technology platforms and four different databases with diverse data collection philosophies. XBRL improved the efficiency and integrity of the data collection process and equipped APRA with powerful web-enabled analysis tools. The banking community also benefits from the introduction of XBRL in regulatory reporting as APRA passes submitted information onto other regulatory organisations for re-use. In this way, the regulated entities only have to submit data to one authority. In addition, the data quality and comparability has resulted in increased availability and quality of aggregate and benchmarking data.

XBRL can support banks to enhance their reporting processes needs in several ways. By reporting their financial statements in XBRL, banks make it easier for the investment community to analyse company data in a more efficient and transparent manner. Regulatory reporting arrangements can also benefit from the use of XBRL, as has been recognised by APRA (see Case Study).

XBRL will also support banks in preparing their financial statements. As different taxonomies are created for different accounting standards it will be easier to transform the financial statements from one accounting standard to another providing that in-depth data is present. This benefit is especially appealing to large financial institutions that have to comply with several standards.

The New Basel Capital Accord will lead to greater reporting requirements for banks. XBRL International has already formed an XBRL Basel Working Group with the goal to foster collaborative efforts for the development of a taxonomy suitable for the new reporting and disclosure needs.

<sup>2</sup> For more on this see <http://www.buildingpublictrust.com>

# XBRL: One standard – many applications *continued...*

## XBRL and the financial markets

As mentioned earlier, XBRL will play an essential role in enhancing the integrity of corporate reports because of its ability to tag individual pieces of information with a precise contextual description. XBRL will also improve investor access and dramatically increase the speed at which management, investors, creditors and other users can obtain information. Adopted on a broad scale, XBRL will greatly simplify how information is produced and consumed. Every member of the corporate reporting supply chain will benefit through:

- Enhanced quality and usability of information;
- Information being obtained more efficiently; and
- More comprehensive and streamlined information.

For those institutions which have yet to experience the benefits of XBRL first hand, NASDAQ, in conjunction with Microsoft and PricewaterhouseCoopers, is providing XBRL data on a group of companies in a web-enabled pilot demonstration<sup>1</sup>. Through the XBRL demonstration tool, interested investors can discover the benefits of using XBRL to analyse

financial information and to compare it with that provided by similar companies.

## Key success factors

XBRL is a relatively new initiative and its ultimate success will depend on a critical mass committing to jointly develop and use the technology on which it is based. Banks can only use XBRL to its full potential if data is delivered to them in XBRL. This in turn is dependent on software applications allowing easy preparation of XBRL data. At the moment, early adopters are implementing XBRL pilots and some have already experienced significant benefits.

XBRL is receiving a further boost as regulatory authorities, such as APRA, recognise its benefits and encourage its use by a broader range of companies. The FDIC in the US and the Inland Revenue in the UK have announced plans to re-engineer their regulatory processes in the near future with XBRL playing a key role. Many other regulators around the world are following suit.

However, XBRL is not the only initiative in this area. There are other initiatives in the Netherlands and France to develop information reporting standards. In contrast to XBRL, which uses a free standard, these initiatives are based

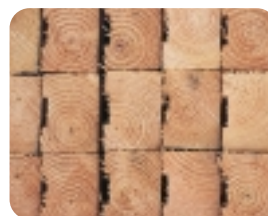
on a proprietary reporting standard which means effectively that XBRL can be integrated more easily into different applications by a wider range of users. Ultimately, the success of any of these activities is dependent on the number of companies and financial institutions using it and the continued pro-active involvement and cooperation between companies, jurisdictional reporting bodies, accounting standard setters, regulators and other governmental entities. To date the XBRL initiative has created a far greater awareness and support and appears the more likely of these initiatives to achieve a critical mass.

## Looking ahead

XBRL is revolutionary but has to become a de facto industry standard with a critical mass using its technology before the financial services sector can experience the full benefits.

Enthusiasm and momentum are clearly building. Leading organisations including Microsoft, Reuters and Morgan Stanley, have begun to use XBRL in the preparation and publication of their financial statements. Systems and software suppliers are beginning to release XBRL-enabled tools and regulatory authorities such as APRA are requesting XBRL based filings.

<sup>1</sup> [www.nasdaq.com/xbrl](http://www.nasdaq.com/xbrl)



Management should be assessing whether there are business areas or processes that might benefit from introducing XBRL-enabled tools, or whether using XBRL to enhance its own external reporting arrangements could be turned into competitive advantage.

Although XBRL is a relatively new technology, its application is broad ranging and the financial services industry, as a key user and producer of financial information, is likely to benefit more than most other sectors from the development and implementation of XBRL-enabled processes.

### The winners with XBRL

All participants in the corporate reporting supply chain win:

#### *Companies that publish financial statements*

- XBRL allows more efficient preparation of financial statements
- Increased integrity of financial statements
- Consolidation of internal information stores is facilitated via the XBRL General Ledger

#### *Analysts, Investors and Regulators*

- XBRL allows better distribution and usability of existing financial information
- Speeds up analysis time and makes information retrieval easier
- Formatting versatility means financial information can be tailored to suit specific analysis and regulatory requirements

#### *Financial data publishers and Data aggregators:*

- XBRL information supply chains are streamlined and efficient
- Operating costs associated with data collection and aggregation (i.e. unreliable or erroneous data feeds) are reduced
- Financial data publishers and data aggregators add value to the data and increase their transactions

#### *Software vendors*

- XBRL creates exciting opportunities for interoperability with existing and developing financial and analytical applications
- Software products that manage financial information can use XBRL for data export and import formats