



# Excursion – XBRL (I)

- XBRL (eXtensible Business Reporting Language) is an emerging XML-based standard to define and exchange business and financial performance information. The standard is governed by a non-profit international consortium (XBRL International Incorporated) of approximately 450 organisations, including regulators, government agencies, infomediaries and software vendors.
- XBRL International is supported by its jurisdictions - independent bodies, generally organised on a country-specific basis, that work to promote the adoption of XBRL and the development of taxonomies that define the information exchange requirements of their particular domains. XBRL is being rapidly adopted to replace both paper-based and legacy electronic financial data collection by a wide range of regulators. It is now starting to be used for the disclosure of financial performance information by companies, notably in voluntary (e.g., "trial basis") [SEC filings](#).



## Excursion – XBRL (IIa)

- XBRL is a standards-based way to communicate business and financial performance data. These communications are defined by metadata set out in taxonomies. Taxonomies capture the definition of individual reporting elements as well as the relationships between elements within a taxonomy and in other taxonomies. The U.S. Federal Deposit Insurance Corporation (FDIC), in coordination with the Federal Reserve Board and the Office of the Controller of the Currency, launched a large and very successful XBRL project in October 2005 involving the collection of quarterly bank financial statements (Call Reports) from over 8300 U.S. banks. Use of XBRL is mandatory and the data is posted on the Internet for public use and analysis. This coordinated U.S. project has proven that XBRL can provide real business value by reducing burden and duplication, improving data transparency and enabling more timely analysis. However, the FDIC implementation of XBRL is a limited example in that the banks use a form-based template to submit their data, a template that actually predates XBRL by almost two decades.



## Excursion – XBRL (I Ib)

- The FDIC implementation of XBRL remains the largest use of XBRL in the U.S.. A white paper was prepared in early 2006 describing the project and business results.
- Historical US company SEC filings information can be downloaded from [Edgar Online](#) on a subscription basis. News distribution companies such as [PR Newswire](#) and [Business Wire](#) provide services to listed companies to allow them to distribute their financial information in XBRL format for a fee.
- The first European project for the Dutch Waterboards, and further successful projects in Europe including Spain, Belgium and others, have given Europe a leading role in implementations. Currently a major project of the Dutch Government for XBRL reporting by all businesses as well as (semi-)government organisations like cities and health institutes will make it the first nation-wide implementation.



# XBRL – Document Structure

- XBRL consists of an instance document, containing primarily the business facts being reported, and a collection of taxonomies, which define metadata about these facts, such as what the facts mean and how they relate to one another. XBRL uses XML schema, XLink, and XPointer standards.



# XBRL – Instance Document

- The instance document holds the <xbml> root. The document itself holds the following information:
  - *Business Facts* - facts can be divided into two categories
    - *Items* are facts holding a single value. They are represented by a single XML element with the value as its content.
    - *Tuples* are facts holding multiple values. They are represented by a single XML element containing nested Items.
  - *Contexts* define the entity (i.e. company or individual) to which the fact applies, the period of time the fact is relevant, and an optional scenario. Scenarios provide further contextual information about the facts, such as whether the business values reported are actual, projected, budgeted, etc.
  - *Units* define the units used by numeric or fractional facts within the document, such as USD, shares. XBRL allows more complex units to be defined if necessary.
  - *Footnotes*
  - *References* to taxonomies, typically through schema references



# XBRL - Taxonomies

- Taxonomies are a collection of XML schema documents and XML documents called linkbases by virtue of their use of XLink. The schema must ultimately extend the XBRL instance schema document and typically extend other published XBRL schemas on the xbrl.org website.
- *Schemas* define Item and Tuple "concepts" using <xsd:element> elements. Concepts provide names for the fact and indicate whether or not it's a tuple or item, what type of data it contains (monetary, numeric, fractional, textual, etc.) among some other metadata. Items and Tuples can be regarded as "implementations" of concepts, or specific instances of a concept. In addition to defining concepts, Schemas reference linkbase documents.
- *Linkbases* are a collection of links, which themselves are a collection of locators, arcs, and potentially resources. Locators are elements that essentially reference a concept and provide an arbitrary label for it. In turn, arcs are elements indicating that a concept links to another concept by referencing the labels defined by the locators. Some arcs link concepts to other concepts. Other arcs link concepts to resources, the most common of which are human-readable labels for the concepts.



# Resources

- Watson, L.; Vasarhelyi, M. (2003): Essentials of XBRL: Financial Reporting in the 21st Century. Wiley & Sons.
- the official XBRL website
  - <http://www.xbrl.org/home/>
- the XBRL specification
  - <http://www.xbrl.org/SpecRecommendations/>
- worldwide XBRL projects
  - [http://serverlab.unab.edu.co:8080/mediawiki/index.php/XBRL\\_Projects](http://serverlab.unab.edu.co:8080/mediawiki/index.php/XBRL_Projects)
- FDIC white paper on business value (PDF)
  - <http://www.xbrl.org/us/us/FFIEC%20White%20Paper%2002Feb2006.pdf>
- ABRA – open source program to process XBRL
  - <http://www.xbrlopen.org/abra/index.html>