XBRL



Past, present and future

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Agenda

Brief history of XBRL

The Extensible Business Reporting Language

XBRL & SDMX

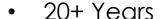
Differences and similarities

Future

- Ongoing XBRL evolution
- Opportunities for collaboration



Global open standard



- 210+ Mandates
- 130+ Regulators
- 60+ Countries
- 25M+ Companies









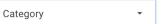






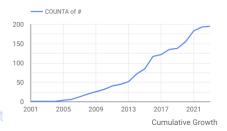
Capital Market Authority

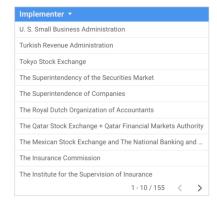




Number of Implementations

214



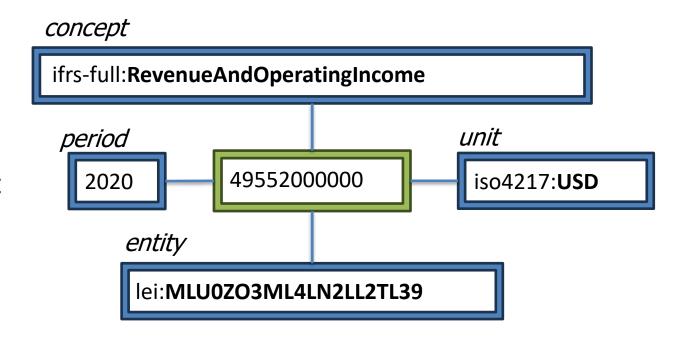






XBRL Reports

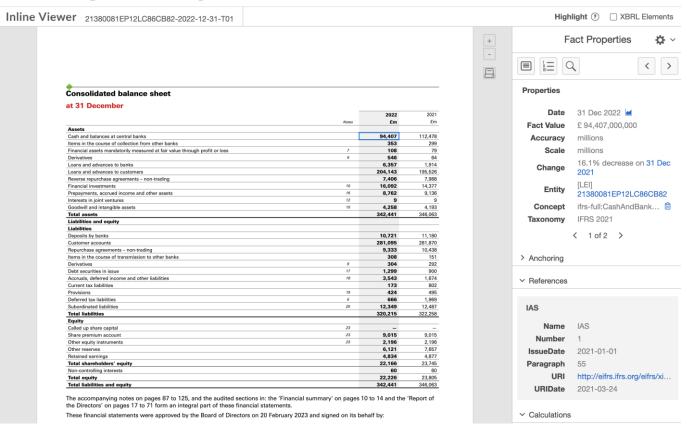
- Dimensional data for
 - Annual financials
 - Tax data
 - Credit risk
 - Water management
 - Sustainability
 - **–** ...
- Each report is an unordered collection of facts qualified by dimensions





Inline XBRL Reports (iXBRL)

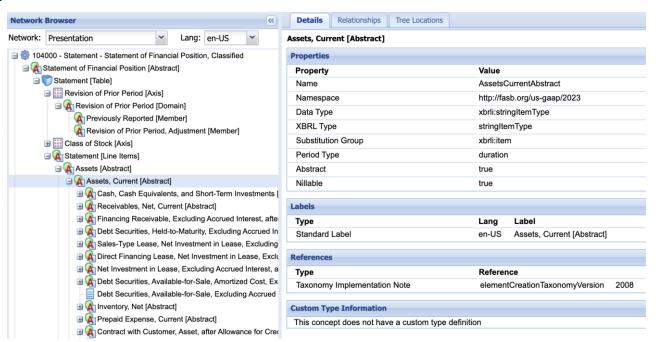
- HTML enriched with semantic XBRL tags
- Developed for HMRC (UK) in 2010
 - 2 million filings/year
- Also required for listed companies in US, Japan, and EU
- Data is publicly available





XBRL Taxonomies

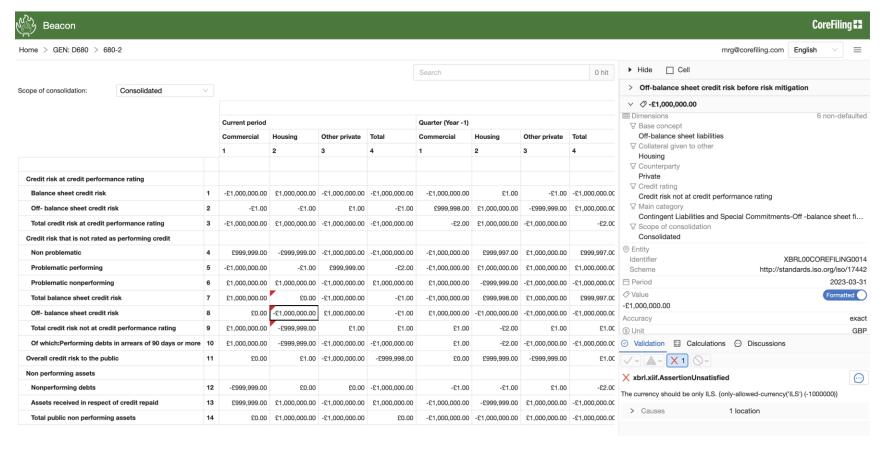
- Concepts
- Dimensions
- Types
- Labels
- References
- Calculations
- Presentation trees
- Cube definitions
- Dimensional assertions
- Pivot table rendering instructions



https://shorturl.at/defU4 https://xbrlview.fasb.org/



XBRL Report, rendered and validated





XBRL's historic strengths & weaknesses

- Reliability
 - Comprehensive validation
- Flexibility
 - Proven in many countries and domains
- Extensibility
 - Mix international, national and company-specific metadata
- Interoperability
 - Large range of mature commercial and open source software
 - Conformance suites and certification

- Verbosity
 - XML, XML Schema, XLink
- Complexity
 - DTS, DRS, Linkbases, arcroleTypes, substitution groups
- Comparability
 - Company-specific extensions can be overused



Recent improvements

- Open Information Model (OIM)
 - Syntax-independent dimensional model
 - Drops complex, low-value features
- xBRL-JSON
 - Simplest, clearest expression of the model
- xBRL-CSV
 - Suitable for granular data ("microdata" in SDMX)



SDMX vs XBRL – Common features

Feature	SDMX	XBRL
Data document	Message	Report
Data item	Observation	Fact
Metadata document	DSD + MSD	Taxonomy Package
Metadata subsets	Dataflow + Metadataflow	Entry point
Metric definition	Indicator	Concept
Dimension definition	Dimension	Dimension
Enumeration	Code List	Explicit Domain
Value restrictions	Uncoded (optional format)	Type (XML Schema facets)
Cube definition	Concept scheme, constraints	Hypercubes
Value scaling	Unit multiplier	Scale (iXBRL only)
Dimensional validation rules	VTL	XBRL Formula

SDMX vs XBRL – Differences

- Attributes have no direct counterpart in XBRL
 - Can be modelled using facts/footnotes and links
- XBRL doesn't have a built-in dimension for geographic area
 - Entity dimension might be appropriate
- XBRL doesn't typically model "frequency"
 - Could be a custom (taxonomy-defined) dimension
- SDMX has standardized APIs
- XBRL has an HTML embedding
- XBRL captures precision, supports interval arithmetic
- XBRL metadata & extension mechanisms seem more flexible



Upcoming XBRL features

- OIM taxonomies (non-XML)
- Formula language improvements
- Digital signatures



XBRL Resources

- https://xbrl.org/
 - https://specifications.xbrl.org/
 - https://software.xbrl.org/
 - https://taxonomies.xbrl.org/
 - https://filings.xbrl.org/



Collaboration opportunities

- SDMX-XBRL converters
- Learning from each other
 - Adding features
 - Improving terminology
 - Sharing best practice
- Eventual convergence?



THANK YOU

Any questions?

