Using XBRL for supervisory purposes: opportunities and constraints

REPARIS IFRS Seminar for banking supervisors
18-19 April 2012
Croatian National Bank
Agenda

• What is XBRL IFRS taxonomy?
• European Finrep: previous and current approach
• Data point modeling in supervisory reporting
A simple (?) task for you:

compare hedge accounting related data of three different banks

difficult and time consuming especially if these banks report according to three different GAAPs (international or national)
let’s make it easier...

- let’s compare data only for IFRS based financial reports of 3 LSE listed banks (FTSE 100)

  - On the face (PFSs) only derivatives. The rest in note no 19.
  - On the face (PFSs) only derivatives. The rest in note no 20.
  - On the face (PFSs) only derivatives. The rest in note no 14.

- but still:
  - reports huge in size – analysis of their content is time consuming
  - data is structured in different ways across those reports – in terms of format (paragraphs, tables, ...) and content (different breakdowns)
  - disaggregation of derivatives into: „held for trading“, „economic hedge“ and „hedge accounting“ differ across reports
    (i) part of derivatives reported under „financial assets held for trading“, the rest under „hedge accounting“
    (ii) all derivatives reported as an aggregated value and later disaggregated into „derivatives held for trading“ and „hedge accounting“
    (iii) ...
and let’s solve the problem

- let’s assume that there is a list of financial concepts with legal references to the IFRS bound volume predefined by the IFRS Foundation
- let’s also assume that there is semantic information on relations between these concepts (presentation, calculation, etc)

In fact, this solution already exists...

...it is the IFRS Taxonomy
Typical challenges of business reporting

Sources
- Financial and accounting systems
- Explanatory disclosures
- Other information

Reporting standards
- IAS/IFRS
- Local GAAP
- Other

Formats
- Proprietary/dedicated format
- XLS
- PDF
- DOC
- HTML (WWW)
- Paper format

Scopes and receivers
- Auditors
- Analysts and Investors
- Lenders & Creditors
- Contractors (Clients and Suppliers)
- Public administration and government agencies, supervisors, Stock Exchanges and SEC, Tax Authorities, Central Banks, Registrar of companies, Statistic agencies, other
2 standards and a huge change

- Financial and accounting systems
- Explanatory disclosures
- Other information

www.ifrs.org/XBRL

Formats:
- XLS
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Application of XBRL in the IFRS Taxonomy

**Technical side**
- open standard
- free from licence fees
- legislation independent

**Implementation for IFRS Taxonomy**
- allows for customization of catalogues of concepts (taxonomies)
- uniquely identifies business concepts
- translating human readable concepts in computer understandable manner

**IFRS Taxonomy**
- IFRS Taxonomy can be used as it is, but can be also adjusted to serve multiple tasks:
  - banking supervision (Finrep)
  - capital market (Chile)
- concepts are defined and include references; they can be applied in many frameworks without a need of recreating them
- data can be easily analysed or exported to other formats
What is the IFRS XBRL Taxonomy?

“The IFRS Taxonomy is the XBRL representation of IFRSs, including International Accounting Standards (IASs), Interpretations, and the IFRS for Small and Medium-sized Entities (SMEs), issued by the IASB. The IFRS Taxonomy contains tags for all IFRS disclosures.”

“By providing the IFRS Taxonomy, the IFRS Foundation seeks to address the demand for an electronic standard to transmit IFRS financial information.”

© IFRS Foundation XBRL website
How does the IFRS XBRL Taxonomy?

IFRS Taxonomy
Catalogue of concepts, (definition of exchanged information)

INSTANCE DOCUMENT
Report containing facts (business data)
XBRL Taxonomy and Instance document (Report)
IFRS+XBRL related projects around the world

Source: IFRS Foundation
European Finrep

Supervisory reporting based on IFRS
XBRL in IFRS based supervisory reporting
(previous Finrep)

- According to the European Parliament and Council Regulation (EC) 1606/2002 of 19 July 2002 all listed EU credit institutions are required from January 1, 2005 to submit consolidated reports according to IAS / IFRS
- It was a great opportunity to unify the financial reporting for supervisory purposes across Europe

- The FINREP-Taxonomy provides an XBRL representation of the CEBS/EBA Financial Reporting Framework. FINancial REPorting is designed for credit institutions that use IAS/IFRS for their published financial statements

- Previous Finrep Taxonomy was an extension of the IFRS Taxonomy (for example Finrep 1.0.0 and 1.2.(1) was an extension of 2006 IFRS taxonomy) developed by IFRS Foundation (previously IASCF - International Accounting Standards Committee Foundation)

- Finrep was not mandatory
- Once an authority decided to apply the framework it should, as a minimum, require the core information. Extensions at national level were possible for consolidated and solo reports
Core vs. Non-core information

Core information: Balance Sheet + Income Statement

Non-core information: Detailed information regarding Core information
Tables: 3 - 40
Finrep: Support for XBRL from European Supervisors increased

“While national supervisory authorities are free to decide on the technical transmission specifications to implement the reporting framework, CEBS considers that XBRL can be a helpful tool in constructing a harmonised European reporting mechanism. CEBS will therefore develop an XBRL platform and make it available free of charge to national authorities and supervised institutions. XBRL taxonomies will be developed for both the COREP (COmmon REPorting - Basel II-) and Finrep (FINancial REPorting - IFRS-) frameworks.”
www.eurofiling.info

Eurofiling project is a joint venture of EBA and its assigned National Supervisory Authorities, XBRL specification team as well as industry and commercial banks

- underlying regulations and technical documentation
- taxonomies (historical versions, documentations, links national extensions, ...)

www.eurofiling.info
Regulations and data model for previous Finrep

IFRS/IAS ...

(EC) 1606/2002

Country 1
NBP 1
Report 1

Country 2
NCB 2
Report 2

Country 3
FSA 3
Report 3

Country 27
NBB 27
Report 27

Global best practices

European Law
9X,XX% best practices + EU requirements
OBLIGATORY!

Transition into national legislation
(national options)

National implementation

Challenge!
Relations between information models
Distribution in Europe

FINREP + XBRL
FINREP + ?
NO FINREP
Issues related to previous Finrep approach

• IFRS changes every year. Supervisory reporting should be more stable

• IFRS is an example of open/extensible taxonomy. Shall Finrep be extensible?

• Goal of IFRS is different than Finrep. Comparability and explicitness of data in Finrep is crucial

• Lack of comparability with capital adequacy because of different consolidation scope
Revised Finrep - upgrades

• Technical level

Independent taxonomy (not extension of IFRS taxonomy)
Not extensible for consolidated reporting (comparability of data across countries increased)

• Business level

Mostly CRD scope of consolidation (excludes insurance and non-financial subsidiaries)
Introduced as regulation, not directive. No space for national interpretations/differences.
   If introduced (still not mandatory) then the sole source of consolidated financial data
Applicable for both: IFRS reporting institutions (based on Regulation (EC) No 1606/2002)
   and non-IFRS reporting institutions (based on Directive 86/635/EEC - BAD)
Build according to new business methodology: Data point modeling
Data point modeling

New approach for IFRS based supervisory reporting
Data point modeling as a new approach for supervisory reporting

• History

  Developed for draft Revised Finrep (2009)
  First introduced for statistical reporting in Spain (2010)

• Present

  Revised Finrep and Corep (EBA)
  Solvency II (EIOPA)

...
Changes in data models. Do they affect taxonomies significantly?

Template 3

- Finrep ver 1: 51 data points
- Finrep rev 2: 45 data points

- Identical cells: 0! due to:
  - different classification of instruments
  - addition of economic hedges as a new portfolio
  - introduction of breakdown by markets

- How to present this change?

<table>
<thead>
<tr>
<th>By type of risk</th>
<th>By instrument</th>
<th>Carrying amount</th>
<th>Notional amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate</td>
<td>Option/Cap/Floor/Collar/Swaption</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>IRS</td>
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<td>FRA</td>
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<td>Forward</td>
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<td></td>
<td>Interest future</td>
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<tr>
<td></td>
<td>Other</td>
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<td></td>
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<tr>
<td>Equity</td>
<td>Equity forward</td>
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<td></td>
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<td></td>
<td>Equity future</td>
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<td>Equity option</td>
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<td></td>
<td>Warrant</td>
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<td></td>
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<td></td>
<td>Other</td>
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<td></td>
</tr>
<tr>
<td>Currency (FX)</td>
<td>FX forward</td>
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<td></td>
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<tr>
<td></td>
<td>FX futures</td>
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<tr>
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<td>Cross currency swap</td>
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<td></td>
<td>FX option</td>
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<td></td>
<td>FX forward rate agreement</td>
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<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Financial Assets Held for Trading, Trading Derivatives, Equity Option

Financial Assets Held for Trading, Trading Derivatives, Equity Option, OTC

Financial Assets Held for Trading, Trading Derivatives, Equity Option, Organized market
Was the change in reporting framework significant?

Finrep ver 1 vs Finrep rev 2

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>Finrep ver 1</th>
<th>=</th>
</tr>
</thead>
<tbody>
<tr>
<td>Held for trading</td>
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<td></td>
</tr>
<tr>
<td>Instruments</td>
<td></td>
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</tr>
<tr>
<td>Option</td>
<td>Option</td>
<td></td>
</tr>
<tr>
<td>Cross swap</td>
<td>Option</td>
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<td>Forward</td>
<td>Option</td>
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<tr>
<td>FRA</td>
<td>Option</td>
<td></td>
</tr>
<tr>
<td>Future</td>
<td>Option</td>
<td></td>
</tr>
<tr>
<td>IRS</td>
<td>Option</td>
<td></td>
</tr>
<tr>
<td>Warrant</td>
<td>Other than Option/Cap/Floor/Collar/Swaption</td>
<td></td>
</tr>
<tr>
<td>Other than Option, Cross</td>
<td>Other than Option/Cap/Floor/Collar/Swaption</td>
<td></td>
</tr>
<tr>
<td>swap, Forward and Future</td>
<td>Other than Option/Cap/Floor/Collar/Swaption, IRS, FRA, Forward and Future</td>
<td></td>
</tr>
<tr>
<td>Other than Option/Cap/Floor/Collar/Swaption</td>
<td>Other than Option/Cap/Floor/Collar/Swaption, IRS, FRA, Forward and Future</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market</th>
<th>Finrep rev 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organized market</td>
<td>Other than options</td>
</tr>
<tr>
<td>OTC</td>
<td>Other than options</td>
</tr>
</tbody>
</table>
How to manage the issue?

"form centric" based on presentation that expresses meaning (interpretation in certain contexts)

"data centric" explicit definition irrespective of presentation (every term fully understood by its own with all properties included in definition)
Need for a data model

1. Information requirements (legal acts, templates and guidelines)

2. Processes
   - analysis (query, comparisons, manipulation) and supervision
   - valid combinations
   - definitions of business terms and their classification
   - business rules and error messages
     - $v1 = v2 + v3$
     - $v1 = \text{abs}(v2 \text{ div } v3)$
     - ...

3. IT Experts

DATA MODEL SHOULD BE A STARTING POINT NOT JUST A SUPPORTING FORMAT!!!
Data point modeling approach: Divide and Conquer

SELECT
SUM(factValue)
FROM allFacts
WHERE
item="assets"
AND
category="loans"
AND
amount="notional"
AND...

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Everything is a perspective

Portfolio breakdown (purpose and measurement)
- e.g. held for trading - “acquired or incurred principally for the purpose of selling or repurchasing it in the near term”; includes different instruments: Derivatives, Loans, Debt securities, Equity instruments, ...

**assets**: property, resources, goods, etc that a company possesses and controls, e.g. financial instruments owned by a reporting entity that shall generate economic benefits in the future

**liabilities**: sources of funding for company’s assets and operations, e.g. financial instruments that have been issued by a reporting entity, thus represents an obligation that needs to be settled in the future by a transfer of some assets (such as cash) from the entity

**income/gains or expenses/losses**: economic benefits that occurred during the period and originated from increase/decrease in value or result on sales/purchase of a given financial instrument

<table>
<thead>
<tr>
<th>Table 1.1. Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents</td>
</tr>
<tr>
<td>Cash on hand</td>
</tr>
<tr>
<td>Demand deposits and cash equivalents</td>
</tr>
<tr>
<td>Financial assets held for trading</td>
</tr>
<tr>
<td>Derivatives held for trading</td>
</tr>
<tr>
<td>Equity instruments</td>
</tr>
<tr>
<td>Debt securities</td>
</tr>
<tr>
<td>Loans and advances</td>
</tr>
<tr>
<td>Financial assets designated at fair value through profit or loss</td>
</tr>
<tr>
<td>Equity instruments</td>
</tr>
<tr>
<td>Debt securities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 1.2. Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial liabilities held for trading</td>
</tr>
<tr>
<td>Derivatives held for trading</td>
</tr>
<tr>
<td>Short positions</td>
</tr>
<tr>
<td>Deposits</td>
</tr>
<tr>
<td>Debt securities issued</td>
</tr>
<tr>
<td>Financial liabilities designated at fair value through profit or loss</td>
</tr>
<tr>
<td>Deposits</td>
</tr>
<tr>
<td>Debt securities issued</td>
</tr>
<tr>
<td>Financial liabilities measured at amortised cost</td>
</tr>
<tr>
<td>Deposits</td>
</tr>
</tbody>
</table>

2. Consolidated Income Statement

**CONTINUING OPERATIONS**

**Interest income**
- Financial assets held for trading (if accounted for separately)
- Financial assets designated at fair value through profit or loss (if)
- Available-for-sale financial assets
- Loans and receivables
- Held-to-maturity investments
- Derivatives - Hedge accounting, interest rate risk
- Other assets

<table>
<thead>
<tr>
<th>(interest expenses)</th>
</tr>
</thead>
</table>
| Financial liabilities held for trading (if accounted for separately)
| Financial liabilities designated at fair value through profit or loss (if)
| Financial liabilities measured at amortised cost |
**DATA POINT:** Net carrying amount of not yet unimpaired but already past due (over 180 days) debt securities held, issued in EUR by MFIs located in EMU with original maturity under one year, measured at amortised cost and relating only to business activities conducted in Spain (local business).

<table>
<thead>
<tr>
<th>Base terms:</th>
<th>Categories:</th>
<th>Impairment status</th>
<th>Past due periods:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td>Total (...)</td>
<td>All / Not-applicable</td>
<td>All</td>
</tr>
<tr>
<td>Liabilities</td>
<td>Cash</td>
<td>Impaired</td>
<td>0 days</td>
</tr>
<tr>
<td>Equity</td>
<td>Loans</td>
<td>Unimpaired</td>
<td>&lt; 180 days</td>
</tr>
<tr>
<td>Off-balance sheet</td>
<td>Debt securities</td>
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<td>≥ 180 days</td>
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<tr>
<td>Exposures</td>
<td>Equity instruments</td>
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<tr>
<td></td>
<td>Tangible and intangible</td>
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<td></td>
<td>Other than (...)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Portfolios:</th>
<th>Amount types:</th>
<th>Original maturity:</th>
<th>Counterparty sectors:</th>
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</thead>
<tbody>
<tr>
<td>Total (...)</td>
<td>Carrying amount</td>
<td>&lt; 1 year</td>
<td>All / Not-applicable</td>
</tr>
<tr>
<td></td>
<td>Fair value through profit or loss</td>
<td>≥ 1 year &lt; 2 year</td>
<td>MFIs</td>
</tr>
<tr>
<td></td>
<td>Amortised cost</td>
<td>≥ 2 years</td>
<td>MMFs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MFIs other than MMFs</td>
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<td></td>
<td></td>
<td></td>
<td>Central Administration</td>
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<td></td>
<td></td>
<td></td>
<td>Other general government</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Non-MFIs other than government</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Base term:</th>
<th>Category:</th>
<th>Original currency:</th>
<th>Counterparty residences:</th>
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</thead>
<tbody>
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<td>Assets</td>
<td>Debt securities</td>
<td>EUR</td>
<td>All / Not-applicable</td>
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<td></td>
<td>Amortised cost</td>
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<td>EMU (...)</td>
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<td></td>
<td>Carrying amount</td>
<td></td>
<td>Spain</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Other than Spain</td>
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<td></td>
<td></td>
<td></td>
<td>Other than Spain in EMU (...)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Other than EMU (...)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount type:</th>
<th>Past due period:</th>
<th>Location of activity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrying amount</td>
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<td>Spain</td>
</tr>
<tr>
<td>Gross carrying amount</td>
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<td>Other than EUR</td>
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<tr>
<td>(Specific allowances)</td>
<td></td>
<td>Other than EMU (...)</td>
</tr>
<tr>
<td>(Collective allowances)</td>
<td></td>
<td>Other than Spain (...)</td>
</tr>
</tbody>
</table>

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DPM methodology consequences

Quality of reported information

- Information is defined explicitly (self-descriptive), no risk for defining the same information in various ways. Model clearly defines allowed and not allowed reported information
- Defined breakdowns for IFRS reporting may be reused by other reporting frameworks (risk, statistical reporting), therefore information is not doubled

Maintenance

- According to DPM methodology changes are “global” but can be “locally” applied. The model is very coherent
- Significant changes in the reporting scope, for example introduction of new IFRS, does not result in significant changes in existing data model

Other

- Data Model may be used as a guide for organizing internal systems
- There is technical possibility to reuse the same information across different institutions (e.g. Insurance, Banking)
Thank you

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