



**Eurofiling**  
**Data modelling and ExcelXBRLGen (Excel Add-In)**

Webinar

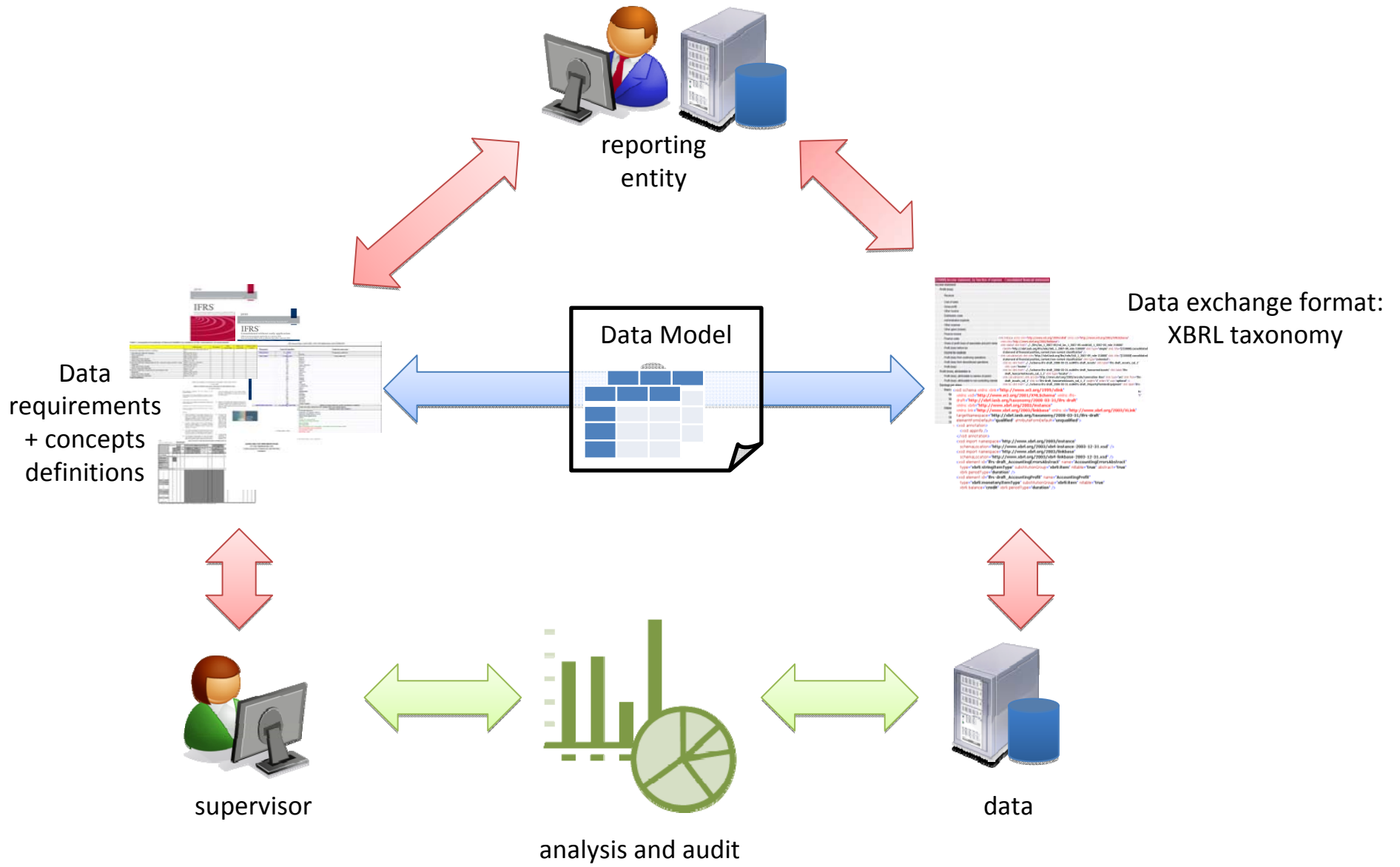
# Agenda

1. Data Model: Purpose, Challenges, Solutions
2. FINREP/COREP/BSI-MIR Information Requirements and Data Models Overview
3. Eurofiling Taxonomy: Presentation
4. ExcelXBRLGen Add-In
5. Proof-of-concept

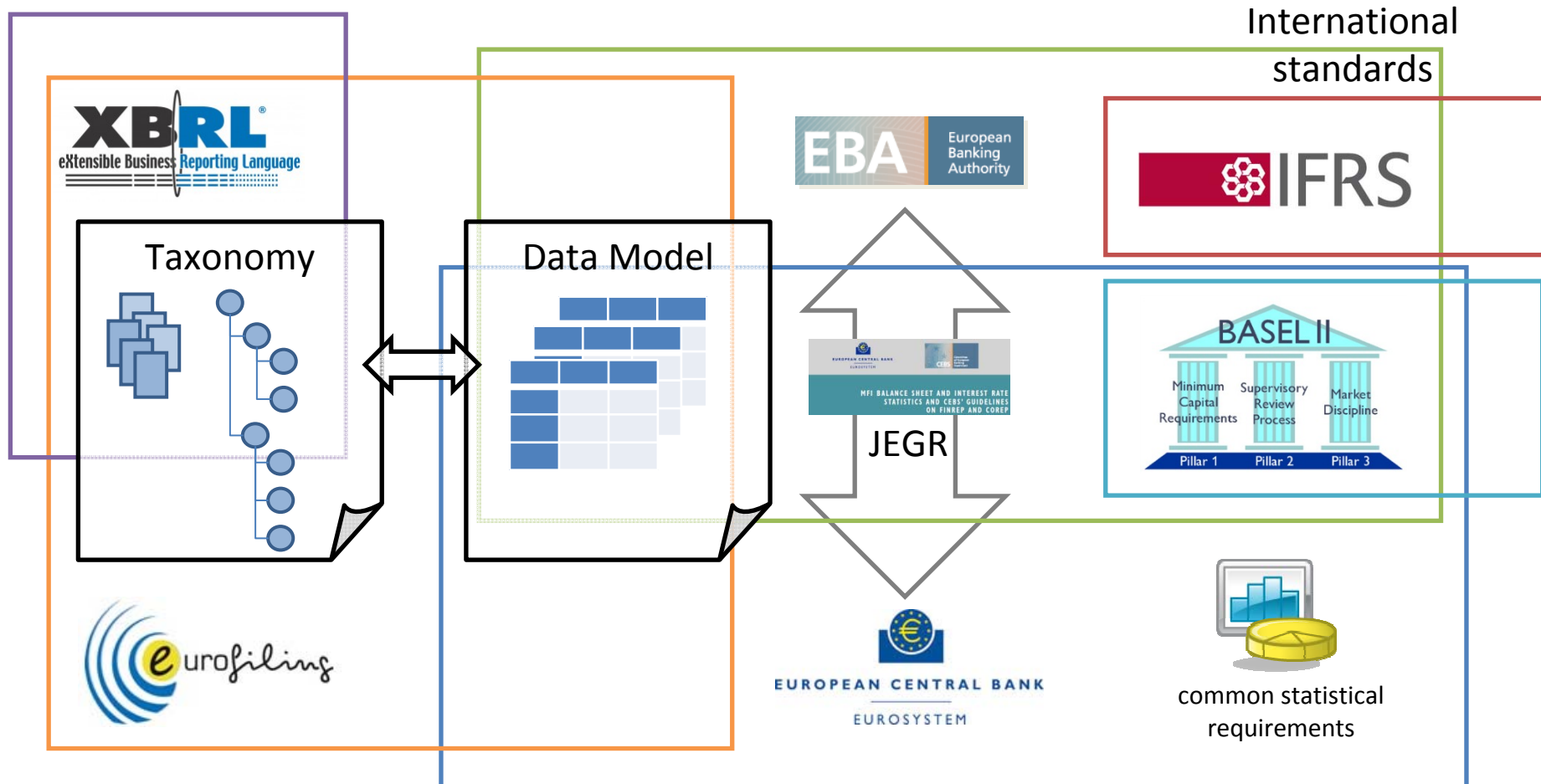
Purpose, Challenges, Solutions

# 1. Data Model

# Role of a Data Model



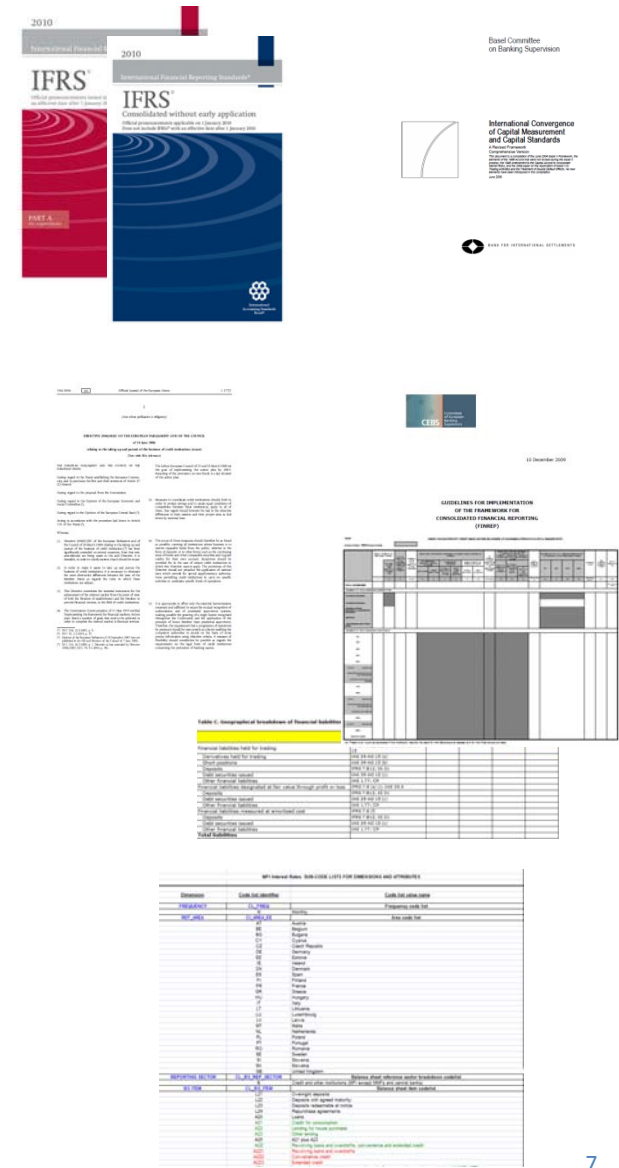
# Structure of the Eurofiling project





# Eurofiling Information Requirements

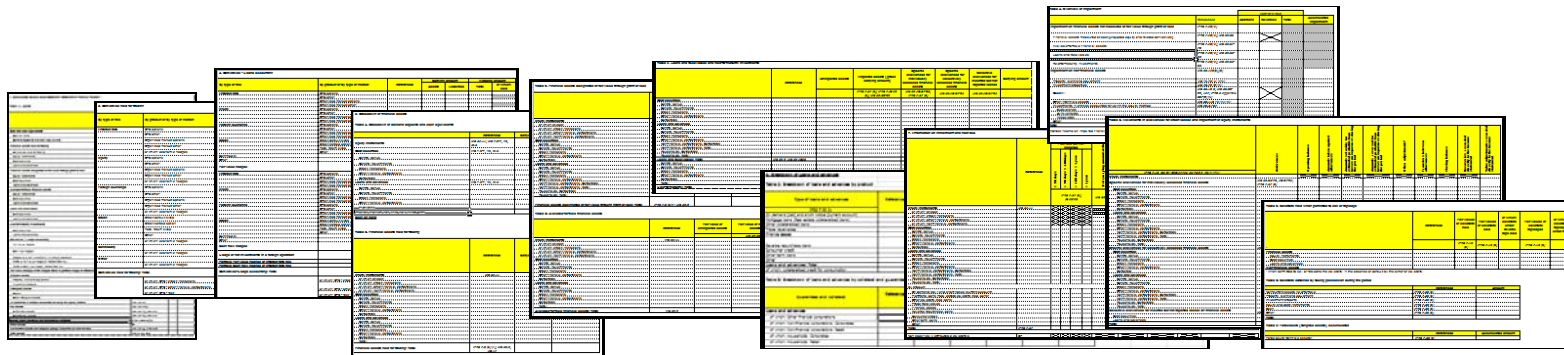
- International Financial Reporting Standards (IFRSs) adopted by the International Accounting Standards Board (IASB),
- **Regulation (EC) No 1606/2002** of the European Parliament and of the Council (19 July 2002) on the application of international accounting standards,
- **Basel II**, International Convergence of Capital Measurement and Capital Standards: A Revised Framework (Comprehensive Version) published by the Basel Committee on Banking Supervision (June 2006),
- **Directive 2006/48/EC** of the European Parliament and of the Council (14 June 2006) relating to the taking up and pursuit of the business of credit institutions (recast),
- **Directive 2006/49/EC** of the European Parliament and of the Council (14 June 2006) on the capital adequacy of investment firms and credit institutions,
- **Guidelines on Common Reporting and Guidelines on Financial Reporting** defined by the Committee of European Banking Supervisors (CEBS) / European Banking Authority (EBA),
- **Guideline of the European Central Bank** (30 July 2002) concerning certain statistical reporting requirements of the European Central Bank and the procedures for reporting by the national central banks of statistical information in the field of money and banking statistics (ECB/2002/5) (2002/656/EC),
- ...



format:  
textual, tabular, enumerated lists, ...

# Challenges and issues in analysis of legal formats

- different scope and purpose of data:
  - different areas/purposes of reporting frameworks:
    - financial reporting
    - solvency reporting
    - statistical reporting
    - etc.
  - sector differences: Basel II vs. Solvency II, IFRS 4 vs. IFRS 9
  - differences in granularity of legal regulations: European laws vs. national interpretations/extensions
  
- detailed analysis of reporting requirements (data models) by business experts
  - managing comprehensive data models: specialization vs. interdisciplinarity of business experts (harmonization, normalization, standardization, comparison)
  - anticipation of changes



The image displays a collection of overlapping financial reporting tables and spreadsheets. These tables are characterized by their dense structure, featuring numerous columns and rows. Many of the tables have yellow highlights, likely indicating specific data points or sections of interest. The tables appear to be organized into sections, possibly representing different parts of a financial statement or regulatory report. The overall visual effect is one of a large, complex, and multi-layered data model.

# Relations between tables

## Detailing [1]

Table 1.1. Assets

<b>Cash and cash equivalents</b>
Cash on hand
Demand deposits and cash equivalents
<b>Financial assets held for trading</b>
Derivatives held for trading
Equity instruments
Debt securities
Loans and advances
<b>Financial assets designated at fair value through profit or loss</b>
Equity instruments
Debt securities
Loans and advances
<b>Available-for-sale financial assets</b>
Equity instruments
Debt securities
Loans and advances
<b>Loans and receivables</b>
Debt securities
Loans and advances
<b>Held-to-maturity investments</b>
Debt securities
Loans and advances
<b>Derivatives - Hedge accounting</b>
Fair value hedges
Cash flow hedges
Hedges of a net investment in a foreign operation
Portfolio Fair value hedge of interest rate risk
Portfolio Cash flow hedge interest rate risk
<b>Fair value changes of the hedged items in portfolio hedge of interest rate risk</b>
<b>Tangible assets</b>
Property, Plant and Equipment
Investment property
<b>Intangible assets</b>
Goodwill
Other intangible assets
<b>Investments in entities accounted for using the equity method</b>
<b>Tax assets</b>
Current tax assets
Deferred tax assets
<b>Assets under insurance and reinsurance contracts</b>
<b>Other assets</b>
<b>Non-current assets and disposal groups classified as held for sale</b>
<b>Total assets</b>

<b>Table A. Geographical breakdown of assets</b>					
	<i>References</i>	<b>Domestic</b>	<b>EMU countries</b>	<b>Other EU countries</b>	<b>Rest of the world</b>
<b>Financial assets held for trading</b>	<i>IFRS 7.8 (a)(ii); IAS 39.9</i>				
Derivatives held for trading	<i>IAS 39.9</i>				
Equity instruments	<i>IAS 32.11</i>				
Debt securities					
Loans and advances					
<b>Financial assets designated at fair value through profit or loss</b>	<i>IFRS 7.8 (a) (i); IAS 39.9</i>				
Equity instruments	<i>IAS 32.11</i>				
Debt securities					
Loans and advances					
<b>Available-for-sale financial assets</b>	<i>IFRS 7.8.(d); IAS 39.9</i>				
Equity instruments	<i>IAS 32.11</i>				
Debt securities					
Loans and advances					
<b>Loans and receivables</b>	<i>IFRS 7.8.(c); IAS 39.9, AG26</i>				
Debt securities					
Loans and advances					
<b>Held-to-maturity investments</b>	<i>IFRS 7.8.(b); IAS 39.9, AG26</i>				
<b>Rest of assets</b>					
<b>Total assets</b>	<i>IAS 1.9 (a), IG 6</i>				

etc...

# Relations between tables Detailing [2]

Table 1.1. Assets

<b>Cash and cash equivalents</b>
Cash on hand
Demand deposits and cash equivalents
<b>Financial assets held for trading</b>
Derivatives held for trading
Equity instruments
Debt securities
Loans and advances
<b>Financial assets designated at fair value through profit or loss</b>
Equity instruments
Debt securities
Loans and advances
<b>Available-for-sale financial assets</b>
Equity instruments
Debt securities
Loans and advances
<b>Loans and receivables</b>
Debt securities
Loans and advances
<b>Held-to-maturity investments</b>
Debt securities
Loans and advances
<b>Derivatives – Hedge accounting</b>
Fair value hedges
Cash flow hedges
Hedges of a net investment in a foreign operation
Portfolio Fair value hedge of interest rate risk
Portfolio Cash flow hedge interest rate risk
<b>Fair value changes of the hedged items in portfolio hedge of interest rate risk</b>
<b>Tangible assets</b>
Property, Plant and Equipment
Investment property
<b>Intangible assets</b>
Goodwill
Other intangible assets
<b>Investments in entities accounted for using the equity method</b>
<b>Tax assets</b>
Current tax assets
Deferred tax assets
<b>Assets under insurance and reinsurance contracts</b>
<b>Other assets</b>
<b>Non-current assets and disposal groups classified as held for sale</b>
<b>Total assets</b>

Table B. Financial assets held for trading

<b>Equity instruments</b>
of which at cost
of which: credit institutions
of which: other financial corporations
of which: non-financial corporations
<b>Debt securities</b>
Central banks
General governments
Credit institutions
Other financial corporations
Corporates
<b>Loans and advances</b>
Central banks
General governments
Credit institutions
Other financial corporations
Corporates
Retail
<b>Financial assets held for trading: Total</b>

Table D. Available-for-sale

<b>Equity instruments</b>
of which at cost
of which: credit institutions
of which: other financial corporations
of which: non-financial corporations
<b>Debt securities</b>
Central banks
General governments
Credit institutions
Other financial corporations
Corporates
<b>Loans and advances</b>
Central banks
General governments
Credit institutions
Other financial corporations
Corporates
Retail
<b>Available-for-sale financial assets: Total</b>

# Relations between tables

## Detailing of aggregates

Table 1.1. Assets

<b>Cash and cash equivalents</b>
Cash on hand
Demand deposits and cash equivalents
<b>Financial assets held for trading</b>
Derivatives held for trading
Equity instruments
Debt securities
Loans and advances
<b>Financial assets designated at fair value through profit or loss</b>
Equity instruments
Debt securities
Loans and advances
<b>Available-for-sale financial assets</b>
Equity instruments
Debt securities
Loans and advances
<b>Loans and receivables</b>
Debt securities
Loans and advances
<b>Held-to-maturity investments</b>
Debt securities
Loans and advances
<b>Derivatives – Hedge accounting</b>
Fair value hedges
Cash flow hedges
Hedges of a net investment in a foreign operation
Portfolio Fair value hedge of interest rate risk
Portfolio Cash flow hedge interest rate risk
<b>Fair value changes of the hedged items in portfolio hedge of interest rate risk</b>
<b>Tangible assets</b>
Property, Plant and Equipment
Investment property
<b>Intangible assets</b>
Goodwill
Other intangible assets
<b>Investments in entities accounted for using the equity method</b>
<b>Tax assets</b>
Current tax assets
Deferred tax assets
<b>Assets under insurance and reinsurance contracts</b>
<b>Other assets</b>
<b>Non-current assets and disposal groups classified as held for sale</b>
<b>Total assets</b>

7. Information on impairment and past due

<b>Equity instruments</b>
of which: at cost
of which: credit institutions
of which: other financial corporations
of which: non-financial corporations
<b>Debt securities</b>
Central banks
General governments
Credit institutions
Other financial corporations
Corporates
<b>Loans and advances</b>
Central banks
General governments
Credit institutions
Other financial corporations
Non-financial corporations, Corporates
Non-financial corporations, Retail
Households, Corporates
Households, Retail
By product:
On demand [call] and short notice [current account]
Mortgage loans (Real estate collateralized loans)
Other collateralized loans
Trade receivables
Finance leases
Reverse repurchase loans
Consumer credit
Other term loans
Other
<b>Total</b>

etc...

# Relations between tables Counterparts

Table 1.1. Assets

<b>Cash and cash equivalents</b>
Cash on hand
Demand deposits and cash equivalents
<b>Financial assets held for trading</b>
Derivatives held for trading
Equity instruments
Debt securities
Loans and advances
<b>Financial assets designated at fair value through profit or loss</b>
Equity instruments
Debt securities
Loans and advances
<b>Available-for-sale financial assets</b>
Equity instruments
Debt securities
Loans and advances
<b>Loans and receivables</b>
Debt securities
Loans and advances
<b>Held-to-maturity investments</b>
Debt securities
Loans and advances
<b>Derivatives - Hedge accounting</b>
Fair value hedges
Cash flow hedges
Hedges of a net investment in a foreign operation
Portfolio Fair value hedge of interest rate risk
Portfolio Cash flow hedge interest rate risk
<b>Fair value changes of the hedged items in portfolio hedge of interest rate risk</b>
<b>Tangible assets</b>
Property, Plant and Equipment
Investment property
<b>Intangible assets</b>
Goodwill
Other intangible assets
<b>Investments in entities accounted for using the equity method</b>
<b>Tax assets</b>
Current tax assets
Deferred tax assets
<b>Assets under insurance and reinsurance contracts</b>
<b>Other assets</b>
<b>Non-current assets and disposal groups classified as held for sale</b>
<b>Total assets</b>

Table 1.2. Liabilities

<b>Financial liabilities held for trading</b>
Derivatives held for trading
Short positions
Deposits
Debt securities issued
Other financial liabilities
<b>Financial liabilities designated at fair value through profit or loss</b>
Deposits
Debt securities issued
Other financial liabilities
<b>Financial liabilities measured at amortised cost</b>
Deposits
Debt securities issued
Other financial liabilities
<b>Derivatives - Hedge accounting</b>
Fair value hedges
Cash flow hedges
Hedges of a net investment in a foreign operation
Portfolio Fair value hedge of interest rate risk
Portfolio Cash flow hedge interest rate risk
<b>Fair value changes of the hedged items in portfolio hedge of interest rate</b>
<b>Provisions</b>
Provisions for employee benefits
Restructuring
Pending legal issues and tax litigation
Loan commitments and guarantees
Other provisions
<b>Tax liabilities</b>
Current tax liabilities
Deferred tax liabilities
<b>Liabilities under insurance and reinsurance contracts</b>
<b>Other liabilities</b>
<b>Share capital repayable on demand</b>
<b>Liabilities included in disposal groups classified as held for sale</b>
<b>Total liabilities</b>

# Relations between tables

## Mergers

**Table 1.1. Assets**

<b>Cash and cash equivalents</b>
Cash on hand
Demand deposits and cash equivalents
<b>Financial assets held for trading</b>
Derivatives held for trading
Equity instruments
Debt securities
Loans and advances
<b>Financial assets designated at fair value</b>
Equity instruments
Debt securities
Loans and advances
<b>Available-for-sale financial assets</b>
Equity instruments
Debt securities
Loans and advances
<b>Loans and receivables</b>
Debt securities
Loans and advances
<b>Held-to-maturity investments</b>
Debt securities
Loans and advances
<b>Derivatives - Hedge accounting</b>
Fair value hedges
Cash flow hedges
Hedges of a net investment in a foreign operation
Portfolio Fair value hedge of interest rate risk
Portfolio Cash flow hedge interest rate risk
<b>Fair value changes of the hedged items in profit or loss</b>
<b>Tangible assets</b>
Property, Plant and Equipment
Investment property
<b>Intangible assets</b>
Goodwill
Other intangible assets
<b>Investments in entities accounted for using the equity method</b>
<b>Tax assets</b>
Current tax assets
Deferred tax assets
<b>Assets under insurance and reinsurance contracts</b>
<b>Other assets</b>
<b>Non-current assets and disposal groups classified as held for sale</b>
<b>Total assets</b>

**Table 1.2. Liabilities**

<b>Financial liabilities held for trading</b>
Derivatives held for trading
Short positions
Deposits

**3. Derivatives held for trading**

By type of risk	By product or by type of market	References	Carrying amount		Notional amount		loss
			Assets	Liabilities	Total	of which: sold	
Interest rate	OTC options						
	OTC other						
	Organized market options						
Equity	of which: economic hedges						
	OTC options						
	OTC other						
Foreign exchange	Organized market options						
	Organized market other						
	of which: economic hedges						
Credit	OTC options						interest rate
	OTC other						
	Organized market options						
Commodity	Organized market other						
	of which: economic hedges						
	Credit default swap						
Other	Credit spread option						
	Total return swap						
	Other						ale
<b>Derivatives held for trading: Total</b>		IAS 39.9, AG 15 (a)					
	of which: OTC - credit institutions						
	of which: OTC - other financial corporations						
	of which: OTC - rest						

# Relations between tables

## Referencing (1)

Table 1.1. Assets

<b>Cash and cash equivalents</b>
Cash on hand
Demand deposits and cash equivalents
<b>Financial assets held for trading</b>
Derivatives held for trading
Equity instruments
Debt securities
Loans and advances
<b>Financial assets designated at fair value through profit or loss</b>
Equity instruments
Debt securities
Loans and advances
<b>Available-for-sale financial assets</b>
Equity instruments
Debt securities
Loans and advances
<b>Loans and receivables</b>
Debt securities
Loans and advances
<b>Held-to-maturity investments</b>
Debt securities
Loans and advances
<b>Derivatives - Hedge accounting</b>
Fair value hedges
Cash flow hedges
Hedges of a net investment in a foreign operation
Portfolio Fair value hedge of interest rate risk
Portfolio Cash flow hedge interest rate risk
<b>Fair value changes of the hedged items in portfolio hedge of interest rate risk (Treasury shares)</b>
<b>Tangible assets</b>
Property, Plant and Equipment
Investment property
<b>Intangible assets</b>
Goodwill
Other intangible assets
<b>Investments in entities accounted for using the equity method</b>
<b>Tax assets</b>
Current tax assets
Deferred tax assets
<b>Assets under insurance and reinsurance contracts</b>
<b>Other assets</b>
<b>Non-current assets and disposal groups classified as held for sale</b>
<b>Total assets</b>

Table 1.3. Equity

<b>Issued capital</b>
Paid in capital
Unpaid capital which has been called up
<b>Share premium</b>
<b>Other Equity</b>
Equity component of compound financial instrument
Other equity instruments
<b>Revaluation reserves and other valuation differences</b>
Tangible assets
Intangible assets
Hedge of net investments in foreign operations
Foreign currency translation
Cash flow hedges [effective portion]
Available-for-sale financial assets
Non-current assets and disposal groups held for sale
Share of other recognised income and expense
Other items
<b>Reserves</b>
Reserves (Accumulated losses) of investments
Other reserves
<b>Profit (loss) attributable to equity holders (Interim dividends)</b>
<b>Minority interests (Non-controlling interests)</b>
Revaluation reserves and other valuation differences
Other items
<b>Total equity</b>
<b>Total equity and total liabilities</b>

21. Statement of comprehensive income

<b>Profit (loss) for the year</b>
<b>Other comprehensive income</b>
<b>Tangible assets</b>
<b>Intangible assets</b>
<b>Hedge of net investments in foreign operations [effective portion]</b>
Valuation gains (losses) taken to equity
Transferred to profit or loss
Other reclassifications
<b>Foreign currency translation</b>
Translation gains (losses) taken to equity
Transferred to profit or loss
Other reclassifications
<b>Cash flow hedges [effective portion]</b>
Valuation gains (losses) taken to equity
Transferred to profit or loss
Transferred to initial carrying amount of hedged items
Other reclassifications
<b>Available-for-sale financial assets</b>
Valuation gains (losses) taken to equity
Transferred to profit or loss
Other reclassifications
<b>Non-current assets and disposal groups held for sale</b>
Valuation gains (losses) taken to equity
Transferred to profit or loss
Other reclassifications
<b>Actuarial gains (losses) on defined benefit pension plans</b>
Share of other recognised income and expense of entities accounted for using the equity method
<b>Other items</b>
<b>Income tax relating to components of other recognised income and expense</b>
<b>Total comprehensive income for the year</b>
Attributable to minority interest [Non-controlling interest]
Attributable to equity holders of the parent

# Relations between tables Referencing (2)

Table 1.1. Assets

<b>Cash and cash equivalents</b>
Cash on hand
Demand deposits and cash equivalents
<b>Financial assets held for trading</b>
Derivatives held for trading
Equity instruments
Debt securities
Loans and advances
<b>Financial assets designated at fair value through profit or loss</b>
Equity instruments
Debt securities
Loans and advances
<b>Available-for-sale financial assets</b>
Equity instruments
Debt securities
Loans and advances
<b>Loans and receivables</b>
Debt securities
Loans and advances
<b>Held-to-maturity investments</b>
Debt securities
Loans and advances
<b>Derivatives – Hedge accounting</b>
Fair value hedges
Cash flow hedges
Hedges of a net investment in a foreign operation
Portfolio Fair value hedge of interest rate risk
Portfolio Cash flow hedge interest rate risk
<b>Fair value changes of the hedged items in portfolio hedge of interest rate risk</b>
<b>Tangible assets</b>
Property, Plant and Equipment
Investment property
<b>Intangible assets</b>
Goodwill
Other intangible assets
<b>Investments in entities accounted for using the equity method</b>
<b>Tax assets</b>
Current tax assets
Deferred tax assets
<b>Assets under insurance and reinsurance contracts</b>
<b>Other assets</b>
<b>Non-current assets and disposal groups classified as held for sale</b>
<b>Total assets</b>

2. Consolidated Income Statement

<b>CONTINUING OPERATIONS</b>
<b>Interest income</b>
Financial assets held for trading [if accounted for separately]
Financial assets designated at fair value through profit or loss [if accounted for separately]
Available-for-sale financial assets
Loans and receivables
Held-to-maturity investments
Derivatives - Hedge accounting, interest rate risk
Other assets
<b>(Interest expenses)</b>
(Financial liabilities held for trading [if accounted for separately])
(Financial liabilities designated at fair value through profit or loss [if accounted for separately])
(Financial liabilities measured at amortised cost)
(Derivatives - Hedge accounting, interest rate risk)
(Other liabilities)
(General and administrative expenses)
...
<b>(Depreciation)</b>
(Property, Plant and Equipment)
(Investment Properties)
(Other intangible assets)
<b>(Provisions) reversal of provisions</b>
<b>(Impairment on financial assets not measured at fair value through profit or loss)</b>
(Financial assets measured at cost [unquoted equity and related derivatives])
(Available- for-sale financial assets)
(Loans and receivables)
(Held to maturity investments)
<b>(Impairment on non-financial assets)</b>
(Property, plant and equipment)
(Investment properties)
(Goodwill)
(Other intangible assets)
(Investments in entities accounted for using the equity method)
(Other)

etc...

# Relations between tables

## Referring to aggregates

Table 1.1. Assets

<b>Cash and cash equivalents</b>
Cash on hand
Demand deposits and cash equivalents
<b>Financial assets held for trading</b>
Derivatives held for trading
Equity instruments
Debt securities
Loans and advances
<b>Financial assets designated at fair value through profit or loss</b>
Equity instruments
Debt securities
Loans and advances
<b>Available-for-sale financial assets</b>
Equity instruments
Debt securities
Loans and advances
<b>Loans and receivables</b>
Debt securities
Loans and advances
<b>Held-to-maturity investments</b>
Debt securities
Loans and advances
<b>Derivatives - Hedge accounting</b>
Fair value hedges
Cash flow hedges
Hedges of a net investment in a foreign operation
Portfolio Fair value hedge of interest rate risk
Portfolio Cash flow hedge interest rate risk
<b>Fair value changes of the hedged items in portfolio hedge of interest rate risk</b>
<b>Tangible assets</b>
Property, Plant and Equipment
Investment property
<b>Intangible assets</b>
Goodwill
Other intangible assets
<b>Investments in entities accounted for using the equity method</b>
<b>Tax assets</b>
Current tax assets
Deferred tax assets
<b>Assets under insurance and reinsurance contracts</b>
<b>Other assets</b>
<b>Non-current assets and disposal groups classified as held for sale</b>
<b>Total assets</b>

Table A. Interest income and expenses

<b>Interest</b>
<b>Derivatives held for trading</b>
<b>Debt securities</b>
Central banks
General governments
Credit institutions
Other financial corporations
Corporates
Retail
<b>Loans and advances</b>
Central banks
General governments
Credit institutions
Other financial corporations
Non-financial corporations, Corporates
Non-financial corporations, Retail
Households, Corporates
Households, Retail
<b>Deposits</b>
Central banks
General governments
Credit institutions
Other financial corporations
Non-financial corporations
Households
<b>Debt securities issued</b>
<b>Other financial liabilities</b>

# Relations between tables

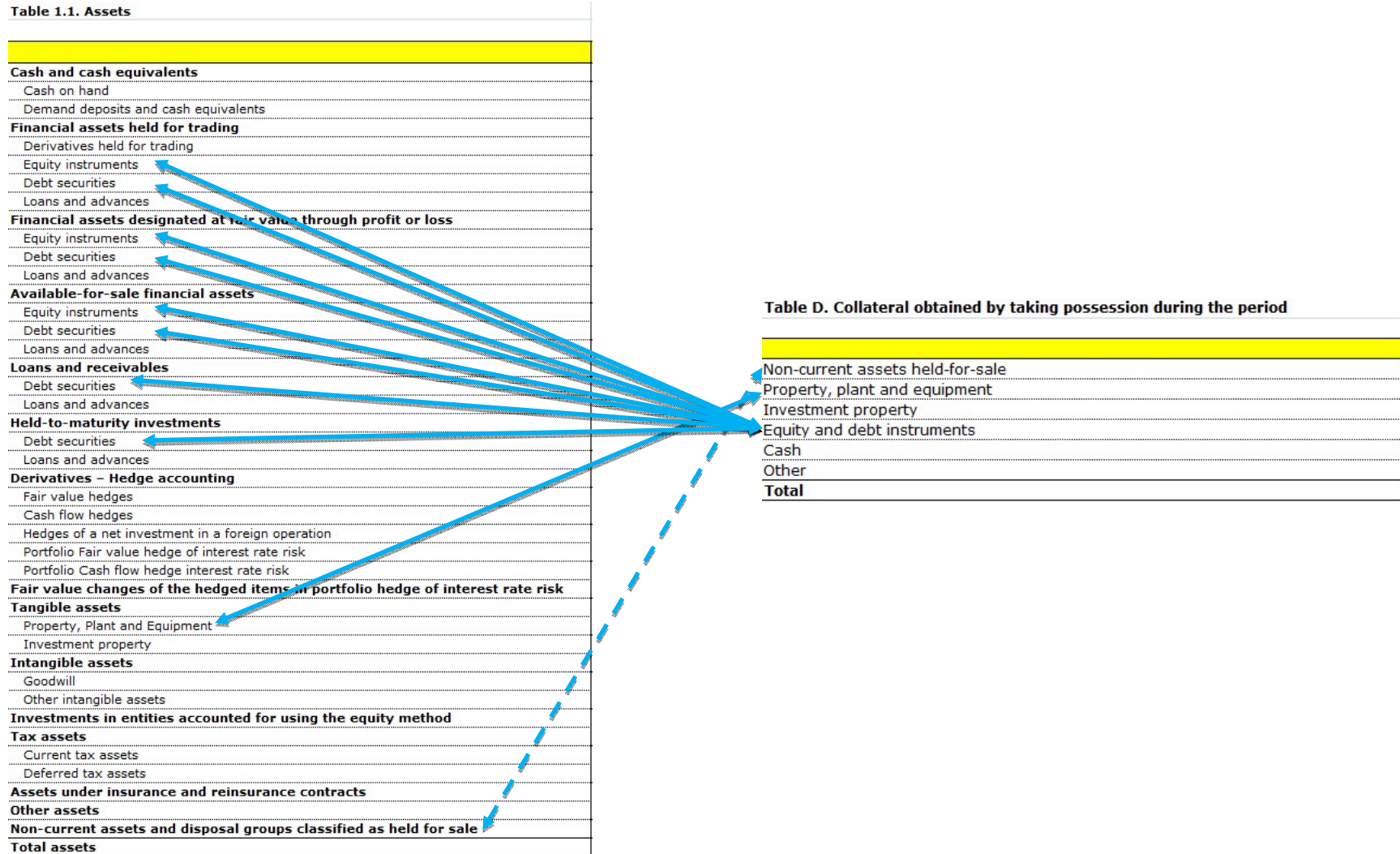
## Cross-referring to aggregates or details

Table 1.1. Assets

<b>Cash and cash equivalents</b>
Cash on hand
Demand deposits and cash equivalents
<b>Financial assets held for trading</b>
Derivatives held for trading
Equity instruments
Debt securities
Loans and advances
<b>Financial assets designated at fair value through profit or loss</b>
Equity instruments
Debt securities
Loans and advances
<b>Available-for-sale financial assets</b>
Equity instruments
Debt securities
Loans and advances
<b>Loans and receivables</b>
Debt securities
Loans and advances
<b>Held-to-maturity investments</b>
Debt securities
Loans and advances
<b>Derivatives – Hedge accounting</b>
Fair value hedges
Cash flow hedges
Hedges of a net investment in a foreign operation
Portfolio Fair value hedge of interest rate risk
Portfolio Cash flow hedge interest rate risk
<b>Fair value changes of the hedged items in portfolio hedge of interest rate risk</b>
<b>Tangible assets</b>
Property, Plant and Equipment
Investment property
<b>Intangible assets</b>
Goodwill
Other intangible assets
<b>Investments in entities accounted for using the equity method</b>
<b>Tax assets</b>
Current tax assets
Deferred tax assets
<b>Assets under insurance and reinsurance contracts</b>
<b>Other assets</b>
Non-current assets and disposal groups classified as held for sale
<b>Total assets</b>

Table D. Collateral obtained by taking possession during the period

Non-current assets held-for-sale
Property, plant and equipment
Investment property
Equity and debt instruments
Cash
Other
<b>Total</b>





# Relations between tables Movements

## 14. Provisions

Table 1.2. Liabilities

	References	Provisions for employee benefits		Restructuring	Pending legal issues and tax litigation	Loan commitments and guarantees	Other provisions	Total
		Pensions and other post retirement benefit obligations	Other employee benefits					
<b>Financial liabilities</b>								
Derivatives held								
Short positions								
Deposits		IAS 1.54; IAS 1.78(d)	IAS 19.40, 44(a), 128, 133, IAS 1.78(d)	IAS 37.70-83	IAS 37.App C.6/10	IAS 37.App C.9-10, IAS 39.2(a), 47(c), (d), BC 15, AG 4	IAS 37.14	
Debt securities								
Other financial liabilities								
<b>Opening balance [carrying amount at the beginning of the period]</b>		IAS 37.84 (a)						
Deposits		IAS 37.84 (b)						
Debt securities		IAS 37.84 (c)						
Other financial liabilities		IAS 37.84 (d)						
<b>Financial liabilities</b>								
Deposits		IAS 37.84 (e)						
Debt securities		CP						
Other financial liabilities		IAS 37.84 (f)						
<b>Closing balance [carrying amount at the end of the period]</b>								

## Derivatives - Hedge accounting

Fair value hedges	
Cash flow hedges	
Hedges of a net investment in a foreign operation	
Portfolio Fair value hedge of interest rate risk	
Portfolio Cash flow hedge interest rate risk	

## Fair value changes of the hedged items in portfolio hedge Table A. Components of defined benefit plan assets and liabilities

Provisions	References	Amount
<b>Provisions for employee benefits</b>		
Restructuring	IAS 19.120A (d), 54 (a)	
Pending legal issues and tax litigation	IAS 19.120A (j), 54 (d)	
Loan commitments and guarantees	IAS 19.120A (j)	
Other provisions	IAS 19.120A (j)	
<b>Tax liabilities</b>		
Current tax liabilities	IAS 19.120A (j)	
Deferred tax liabilities	IAS 19.120A (j)	
<b>Liabilities under insurance and reinsurance contracts</b>		
<b>Other liabilities</b>		
<b>Share capital repayable on demand</b>		
<b>Liabilities included in disposal groups classified as held for sale</b>		
<b>Total liabilities</b>		
<b>Present value of wholly or partially funded defined benefit obligations</b>	IAS 19.120A (d), 54 (a)	
<b>Fair value, defined benefit plan assets</b>	IAS 19.120A (j), 54 (d)	
Equity instruments	IAS 19.120A (j)	
Debt instruments	IAS 19.120A (j)	
Property	IAS 19.120A (j)	
Other assets	IAS 19.120A (j)	
Of which: Financial instruments issued by the entity	IAS 19.120A (k) (i)	
<b>Present value of wholly unfunded defined benefit obligations</b>	IAS 19.120A (d), 54 (a)	
<b>Unrecognised actuarial gains</b>	IAS 19.120A (f) (i), 92, 54 (b)	
<b>Unrecognised actuarial (losses)</b>	IAS 19.120A (f) (i), 92, 54 (b)	
<b>Unrecognised past service cost</b>	IAS 19.120A (f) (ii); 96, 54 (c)	
<b>Amounts not recognised as an asset, due to limits of para 58 (b)</b>	IAS 19.120A (f) (iii), 58 (b)	
<b>Defined benefit assets, total</b>	IAS 19.120A (f)	
<b>Pension and other post retirement benefit obligations</b>	IAS 19.120A (f), 54	
<b>Memo item: Fair value of any right to reimbursement recognised as an asset</b>	IAS 19.120A (f) (iv), 104A	

# Relations between tables and guidelines

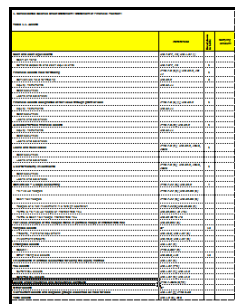
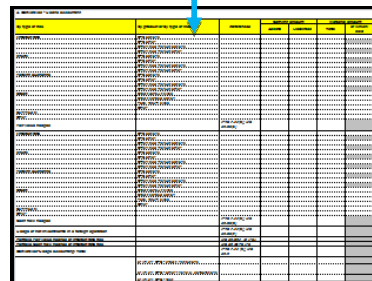
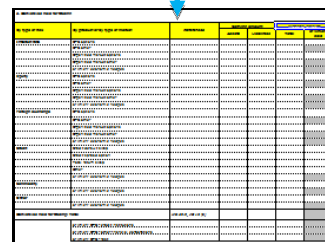
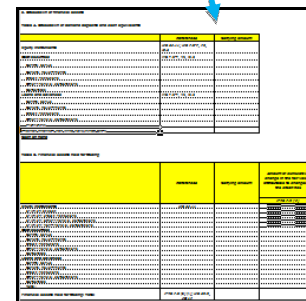
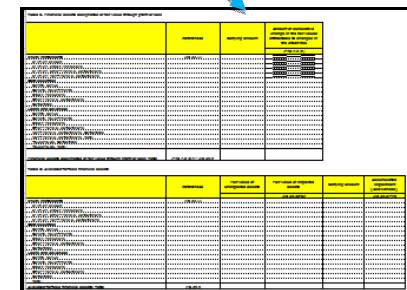
## 4. Scope of consolidation

- 13 The scope of consolidation under FINREP is the Capital Requirements Directive scope (CRD) which shall be applied to all the templates.
- 14 Furthermore the following templates: 1. Consolidated Balance Sheet Statement [Statement of Financial Position], 2. Consolidated Income Statement, 3. Derivatives held for trading, 4. Derivatives - Hedge accounting, 13. Tangible and intangible assets, 20. Breakdown of selected items of income statement, 21. Statement of comprehensive income and 22. Statement of changes in equity can be collected using the IFRS scope of consolidation in addition to the CRD scope of consolidation. Table 25. Scope of the group provides information on both scopes. All other templates should be collected using the CRD scope of consolidation only. National supervisors should publicly disclose the scope of the consolidation for each template. Information collected with the IFRS scope of consolidation should be consistent with the institution's public financial disclosure.

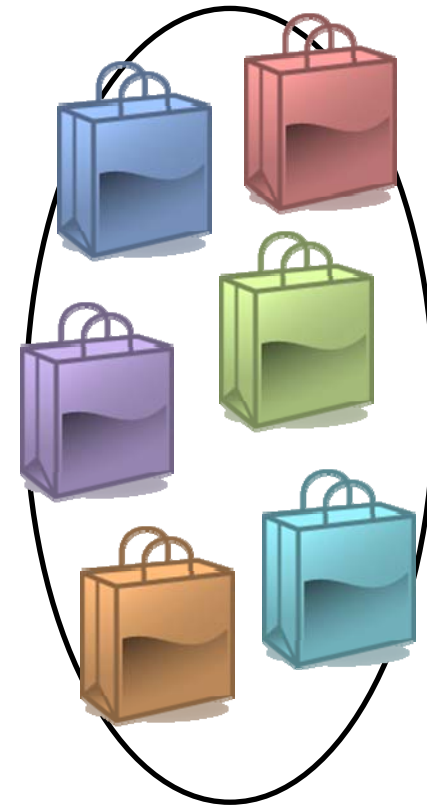
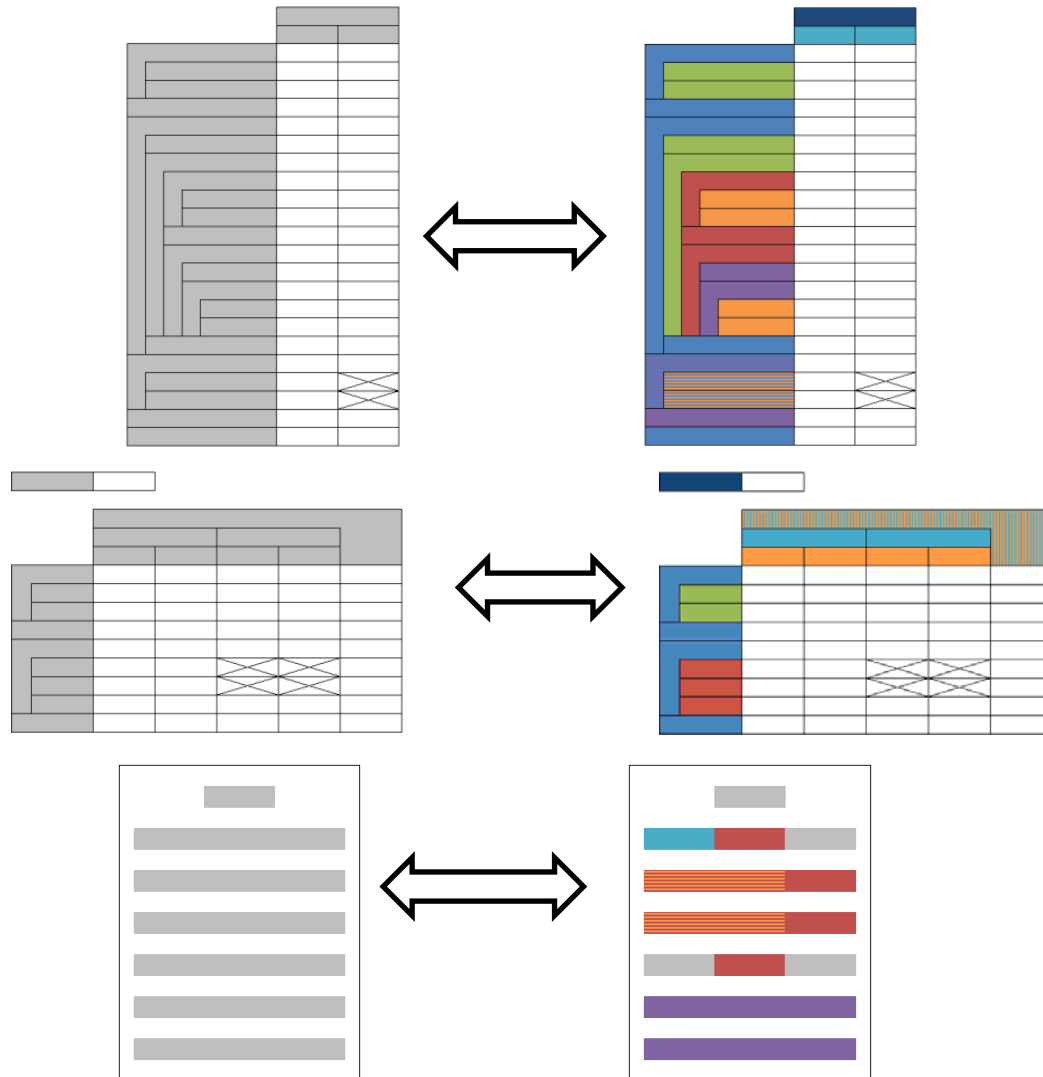


12 December 2009

GUIDELINES FOR IMPLEMENTATION OF THE FRAMEWORK FOR CONSOLIDATED FINANCIAL REPORTING (FINREP)

# Solution: Divide and Conquer



# Identification of information requirements

- **divide and conquer** process (analysis of underlying financial standards/regulations):
  - purpose of a table (usually expressed by its title, thus describing in general the type and character of information required by the content of a table),
  - intersection of a header of a row and a header of a column which names the required information in context of a table,
  - location in a hierarchy in headers of rows and headers of column (inheritance),
  - supportive documentation, i.e. explanatory guidelines that are issued and published along with the data model,
  - recursive: supporting documentation and content of other tables allowing identify implicit information that is not explicitly expressed in an analysed table
- **characteristics of bags:**
  - coherent (a set of items that have something in common – share a common semantic nature)
  - minimizing redundancy
- result: **consistent and explicit model**

# Example [1]

**SUMMARY BALANCE. (Business in Spain)**

Corresponding to \_\_\_\_\_ to \_\_\_\_\_ to \_\_\_\_\_

ENTITY \_\_\_\_\_

Year	Month		P
		-	2

	Total	Residents in Spain		Residents in other states EMU			
		Euro	Foreign currency	Euro	Foreign currency		
<b>1. Cash (a)</b> .....	0001	0081	0121				
<b>2. Loans and credits</b> .....	0005	0085	0125	0205	0245		
2.1. Monetary financial institutions (MFIs) .....	0006	0086	0126	0206	0246		
2.2. Central Administration .....	0007	0087	0127	0207	0247	0287	
2.3. Other general government .....	0008	0088	0128	0208	0248	0288	
2.4. Other sectors .....	0009		0129	0209	0249	0289	
<b>3. Debt securities (+/-)</b> .....	0010	0090	0130	0210	0250	0290	
3.1. Monetary financial institutions (MFIs) .....	0011	0091	0131	0211	0251	0291	
3.1.1. Up to one year .....	0012	0092	0132	0212	0252	0292	
3.1.2. More than 1 and up to 2 years .....	0013	0093	0133	0213	0253	0293	
3.1.3. Over 2 years .....	0014	0094	0134	0214	0254	0294	
3.2. Central Administration .....	0015	0095	0135	0215	0255	0295	
3.3. Other general government .....	0016	0096	0136	0216	0256	0296	
3.4. Other sectors .....	0017	0097	0137	0217			
<b>4. Investments in money market (+/-) (FMM)</b> .....	0020	0100	0140	0220			
0025	0105	0145	0225				
<b>5. Equity (+/-)</b> .....	0025	0105	0145	0225			
5.1. Monetary financial institutions (MFIs) .....	0026	0106	0146	0226	0266	0306	
5.2. Other sectors .....	0027	0107	0147	0227	0267	0307	
<b>6. Fixed assets</b> .....	0030						
<b>7. Other assets</b> .....	0035						
<b>TOTAL</b> .....	0040	0120	0160	0240	0280	0320	

**ASSETS**

**Assets**

**Breakdowns and additional information**

Official Journal of the European Union

1

(in other languages: English)

**DIRECTIVE 2006/48/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

of 14 June 2006

relating to the taking up and pursuit of the business of credit institutions

(First time this document is published)

The Commission has received from the Member States the following information:

1. The Commission has received from the Member States the following information:

2. The Commission has received from the Member States the following information:

3. The Commission has received from the Member States the following information:

4. The Commission has received from the Member States the following information:

5. The Commission has received from the Member States the following information:

6. The Commission has received from the Member States the following information:

7. The Commission has received from the Member States the following information:

8. The Commission has received from the Member States the following information:

9. The Commission has received from the Member States the following information:

10. The Commission has received from the Member States the following information:

11. The Commission has received from the Member States the following information:

12. The Commission has received from the Member States the following information:

13. The Commission has received from the Member States the following information:

14. The Commission has received from the Member States the following information:

15. The Commission has received from the Member States the following information:

16. The Commission has received from the Member States the following information:

17. The Commission has received from the Member States the following information:

18. The Commission has received from the Member States the following information:

19. The Commission has received from the Member States the following information:

20. The Commission has received from the Member States the following information:

21. The Commission has received from the Member States the following information:

22. The Commission has received from the Member States the following information:

23. The Commission has received from the Member States the following information:

24. The Commission has received from the Member States the following information:

25. The Commission has received from the Member States the following information:

26. The Commission has received from the Member States the following information:

27. The Commission has received from the Member States the following information:

28. The Commission has received from the Member States the following information:

29. The Commission has received from the Member States the following information:

30. The Commission has received from the Member States the following information:

31. The Commission has received from the Member States the following information:

32. The Commission has received from the Member States the following information:

33. The Commission has received from the Member States the following information:

34. The Commission has received from the Member States the following information:

35. The Commission has received from the Member States the following information:

36. The Commission has received from the Member States the following information:

37. The Commission has received from the Member States the following information:

38. The Commission has received from the Member States the following information:

39. The Commission has received from the Member States the following information:

40. The Commission has received from the Member States the following information:

41. The Commission has received from the Member States the following information:

42. The Commission has received from the Member States the following information:

43. The Commission has received from the Member States the following information:

44. The Commission has received from the Member States the following information:

45. The Commission has received from the Member States the following information:

46. The Commission has received from the Member States the following information:

47. The Commission has received from the Member States the following information:

48. The Commission has received from the Member States the following information:

49. The Commission has received from the Member States the following information:

50. The Commission has received from the Member States the following information:

51. The Commission has received from the Member States the following information:

52. The Commission has received from the Member States the following information:

53. The Commission has received from the Member States the following information:

54. The Commission has received from the Member States the following information:

55. The Commission has received from the Member States the following information:

56. The Commission has received from the Member States the following information:

57. The Commission has received from the Member States the following information:

58. The Commission has received from the Member States the following information:

59. The Commission has received from the Member States the following information:

60. The Commission has received from the Member States the following information:

61. The Commission has received from the Member States the following information:

62. The Commission has received from the Member States the following information:

63. The Commission has received from the Member States the following information:

64. The Commission has received from the Member States the following information:

65. The Commission has received from the Member States the following information:

66. The Commission has received from the Member States the following information:

67. The Commission has received from the Member States the following information:

68. The Commission has received from the Member States the following information:

69. The Commission has received from the Member States the following information:

70. The Commission has received from the Member States the following information:

71. The Commission has received from the Member States the following information:

72. The Commission has received from the Member States the following information:

73. The Commission has received from the Member States the following information:

74. The Commission has received from the Member States the following information:

75. The Commission has received from the Member States the following information:

76. The Commission has received from the Member States the following information:

77. The Commission has received from the Member States the following information:

78. The Commission has received from the Member States the following information:

79. The Commission has received from the Member States the following information:

80. The Commission has received from the Member States the following information:

81. The Commission has received from the Member States the following information:

82. The Commission has received from the Member States the following information:

83. The Commission has received from the Member States the following information:

84. The Commission has received from the Member States the following information:

85. The Commission has received from the Member States the following information:

86. The Commission has received from the Member States the following information:

87. The Commission has received from the Member States the following information:

88. The Commission has received from the Member States the following information:

89. The Commission has received from the Member States the following information:

90. The Commission has received from the Member States the following information:

91. The Commission has received from the Member States the following information:

92. The Commission has received from the Member States the following information:

93. The Commission has received from the Member States the following information:

94. The Commission has received from the Member States the following information:

95. The Commission has received from the Member States the following information:

96. The Commission has received from the Member States the following information:

97. The Commission has received from the Member States the following information:

98. The Commission has received from the Member States the following information:

99. The Commission has received from the Member States the following information:

100. The Commission has received from the Member States the following information:

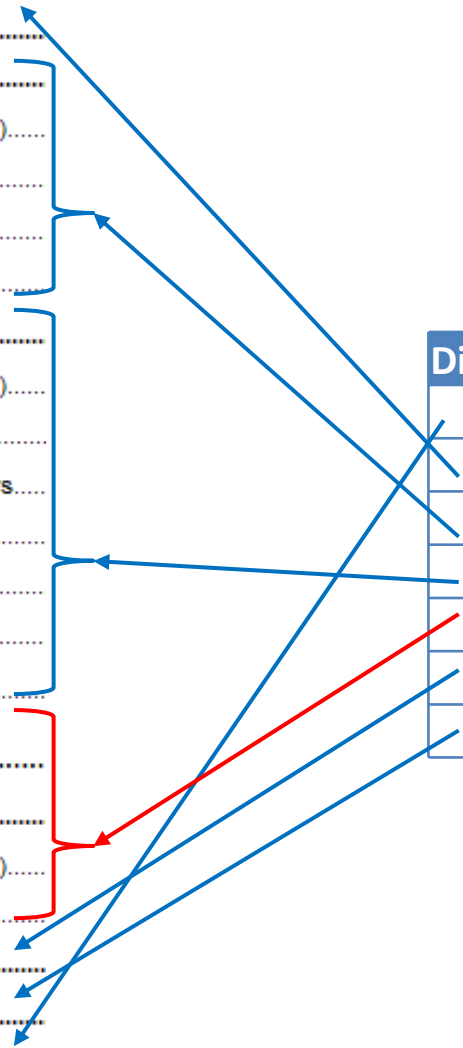
# Example [2]

**ASSETS**

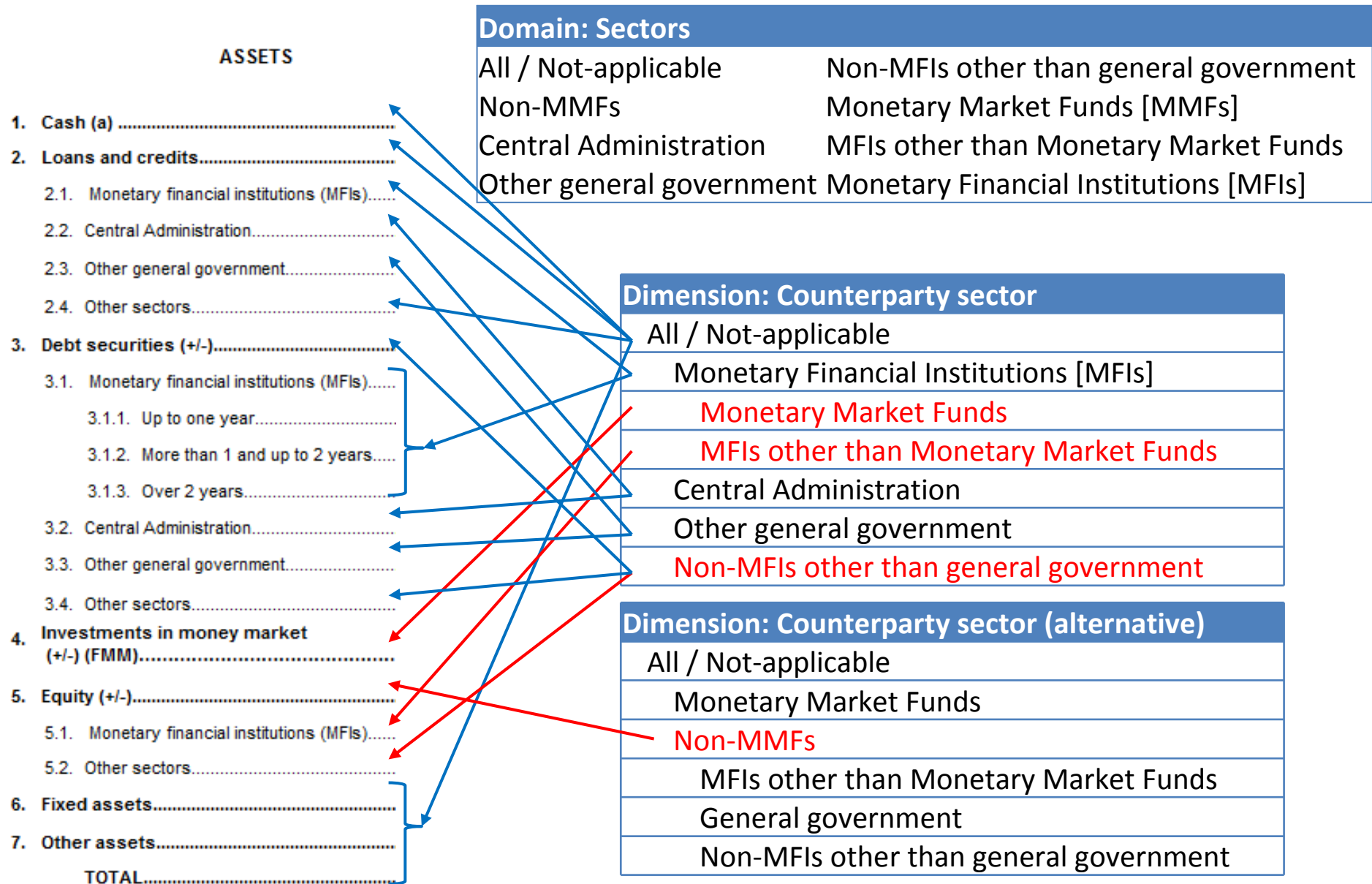
<b>1. Cash (a)</b> .....
<b>2. Loans and credits</b> .....
2.1. Monetary financial institutions (MFIs).....
2.2. Central Administration.....
2.3. Other general government.....
2.4. Other sectors.....
<b>3. Debt securities (+/-)</b> .....
3.1. Monetary financial institutions (MFIs).....
3.1.1. Up to one year.....
3.1.2. More than 1 and up to 2 years.....
3.1.3. Over 2 years.....
3.2. Central Administration.....
3.3. Other general government.....
3.4. Other sectors.....
<b>4. Investments in money market (+/-) (FMM)</b> .....
<b>5. Equity (+/-)</b> .....
5.1. Monetary financial institutions (MFIs).....
5.2. Other sectors.....
<b>6. Fixed assets</b> .....
<b>7. Other assets</b> .....
<b>TOTAL</b> .....

Domain: Categories
Total (...)
Cash
Loans and credits
Debt securities
Equity instruments
Fixed
Other than (...)

Dimension: Categories of assets
Total (...)
Cash
Loans and credits
Debt securities
<b>Equity instruments</b>
Fixed
Other than (...)



# Example [3]



# Example [4]

## ASSETS

- 1. Cash (a) .....
- 2. Loans and credits.....
  - 2.1. Monetary financial institutions (MFIs).....
  - 2.2. Central Administration.....
  - 2.3. Other general government.....
  - 2.4. Other sectors.....
- 3. Debt securities (+/-).....
  - 3.1. Monetary financial institutions (MFIs).....
    - 3.1.1. Up to one year.....
    - 3.1.2. More than 1 and up to 2 years.....
    - 3.1.3. Over 2 years.....
  - 3.2. Central Administration.....
  - 3.3. Other general government.....
  - 3.4. Other sectors.....
- 4. Investments in money market (+/-) (FMM).....
- 5. Equity (+/-).....
  - 5.1. Monetary financial institutions (MFIs).....
  - 5.2. Other sectors.....
- 6. Fixed assets.....
- 7. Other assets.....
- TOTAL**.....

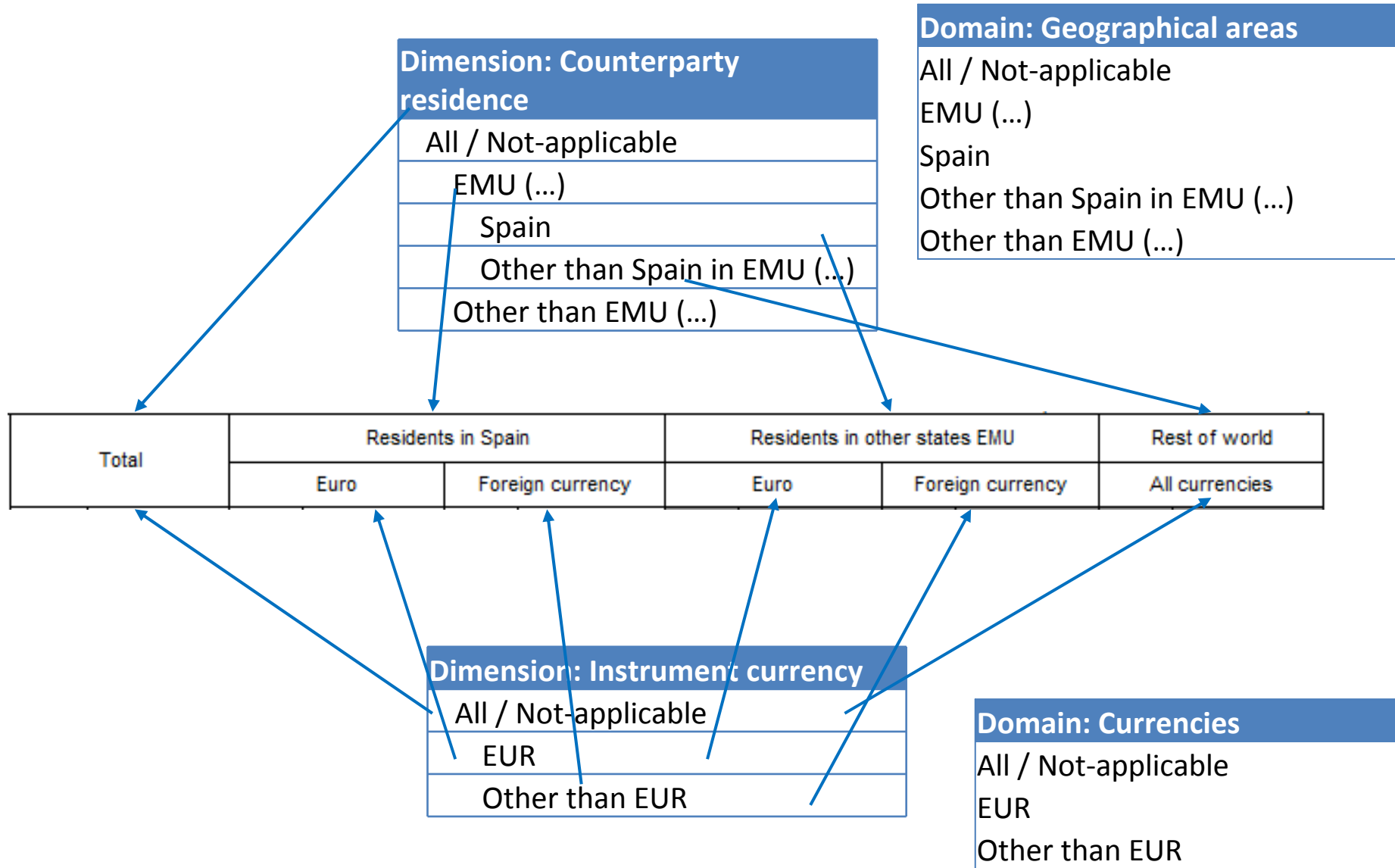
### Domain: Time interval

- All
- < 1 year
- ≥ 1 year < 2 year
- ≥ 2 years

### Dimension: Original maturity

- All
- < 1 year
- ≥ 1 year < 2 year
- ≥ 2 years

# Example [5]



# Example [6]

## SUMMARY BALANCE (Business in Spain)

Corresponding to \_\_\_\_\_ to \_\_\_\_\_ to \_\_\_\_\_

ENTITY \_\_\_\_\_

Year	Month		P	State	Entity Code
		-	-	2 2 5 0	

(Thousands of euros rounded)

ASSETS	Total	Residents in Spain		Residents in other states EMU		Rest of world	
		Euro	Foreign currency	Euro	Foreign currency	All currencies	
1. Cash (a) .....	0001	0081	0121				
2. Loans and credits .....	0005	0085	0125	0205	0245	0285	
2.1. Monetary financial institutions (MFIs) .....	0006	0086	0126	0206	0246	0286	
2.2. Central Administration .....	0007	0087	0127	0207	0247	0287	
2.3. Other general government .....	0008	0088	0128	0208	0248	0288	
2.4. Other sectors .....	0009	0089	0129	0209	0249	0289	
3. Debt securities (+/-) .....	0010	0090	0130	0210	0250	0290	
3.1. Monetary financial institutions (MFIs) .....	0011	0091	0131	0211	0251	0291	
3.1.1. Up to one year .....	0012	0092	0132	0212	0252	0292	
3.1.2. More than 1 and up to 2 years .....	0013	0093		0133			
3.1.3. Over 2 years .....	0014	0094		0134			
3.2. Central Administration .....	0015	0095		0135			
3.3. Other general government .....	0016	0096		0136			
3.4. Other sectors .....	0017	0097		0137			
4. Investments in monetary financial institutions (+/-) (FMM) .....	0020	0100	0140				
4.1. Monetary financial institutions .....	0025	0105	0145				
4.1.1. Monetary financial institutions .....	0026	0106	0146				
4.1.2. Other sectors .....	0027	0107	0147				
5. Equity (+/-) .....	0030						
5.1. Monetary financial institutions .....	0035						
5.2. Other sectors .....	0040						
6. Fixed assets .....							
7. Other assets .....							
<b>TOTAL</b> .....	0040	0120	0160	0240	0280	0320	



- Basic concept: Assets
- Category of assets: Debt securities
- Counterparty sector: Monetary Financial Institutions
- Original maturity:  $\geq 1$  year  $< 2$  year
- Counterparty residence: Spain
- Instrument original currency: EUR
- Location of activity: Spain
- Amount type: Outstanding

# Example [7]

Dimension: Categories of assets
Total (...)
(...)
Loans and credits

Dimension: Counterparty sector
All / Not-applicable
(...)
Non-MFIs other than general government
Non-financial corporations
Households and NPISHs

STATE UEM.13  
Page1 de 1

Domain: Time interval
≤ 1 year
> 1 year

## DETAILS OF CERTAIN LOANS AND RECEIVABLES (BUSINESS IN SPAIN)

Corresponding to the \_\_\_\_\_ of \_\_\_\_\_

ENTITY \_\_\_\_\_  
\_\_\_\_\_

Year	Month		P	State	Entity Code
		-	-	T 4 2 1 3	

Dimensions:
Original maturity
Remaining maturity
Revision of interest rates

*(Thousands of euros rounded)*

	Residents in Spain		Residents in other EMU states	
	Total	Of which: euro	Total	Of which: euro
<b>Credits</b> to original maturity > 1 year				
With residual maturity ≤ 1 year (b)				
Non-financial corporations.....		0060		0
Households and NPISHs.....		0061		0161
With residual maturity > 1 and revision of interest rate over the next 12 months (b)				
Non-financial corporations.....		0062		0
Households and NPISHs.....		0063		0

Original maturity: > 1 year

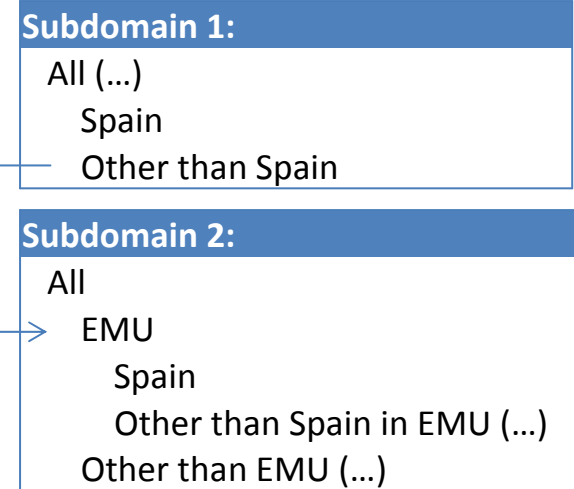
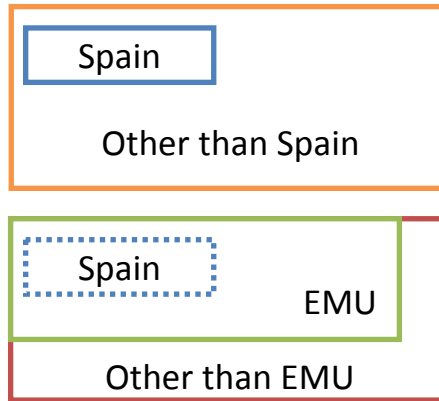
Remaining maturity: ≤ 1 year

Original maturity: > 1 year

Remaining maturity: > 1 year

Revision of interest rate: ≤ 1 year

# Example [8]



**Dimensions:**

- Location of activity
- Securitization partner residence
- Counterparty residence

STATE UEM.12

**SECURITIZATION AND OTHER TRANSFERS OF LOANS.  
(BUSINESS IN SPAIN)**

Corresponding to the \_\_\_\_\_ of \_\_\_\_\_

		Year	Month	P	State	Entity Code
		T	4	2	1	2

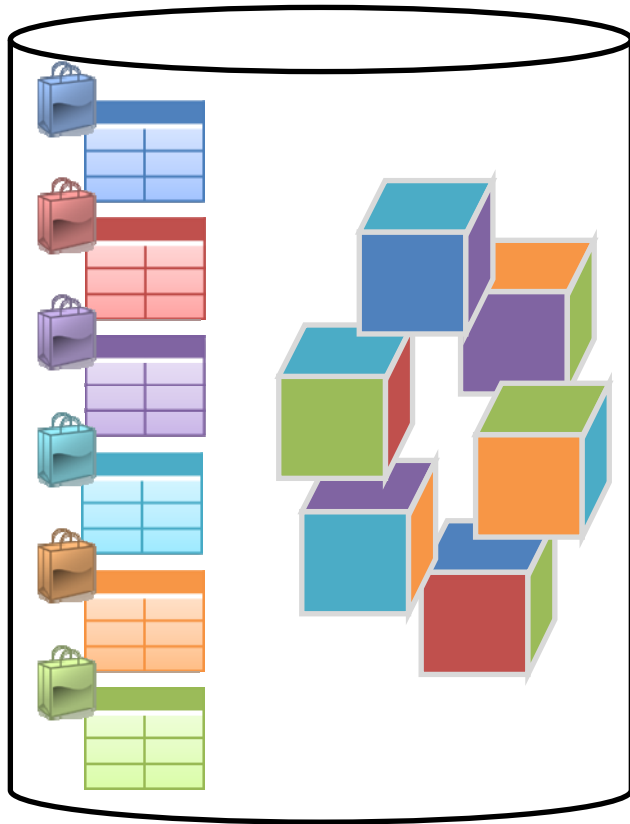
(Thousands of euros rounded)

Loans and credits	Net flows of loans transferred during the current quarter. With impact on reported balances (a)			Managed loans outstanding securitization (b)		
	Counterparty securitization companies and funds		Other partners	Total	Then of: Counterparty securitization companies and funds of the euro area	
	Total	Of which: euro area			Spain	Other countries (c)
<b>RESIDENTS IN SPAIN</b>						
Non-financial corporations.....	0006	0056		0156	0206	0256
Households and NPISHs.....	0010		0110	0160	0210	0260
<b>RESIDENTS IN OTHER STATES EMU</b>						
Non-financial corporations.....	0020	0070		0170	0220	0270
Households and NPISHs.....	0024		0124	0174	0224	0274
<b>REST OF THE WORLD</b>						
All sectors .....				0179	0229	0279

**Domain: Geographical and political areas**

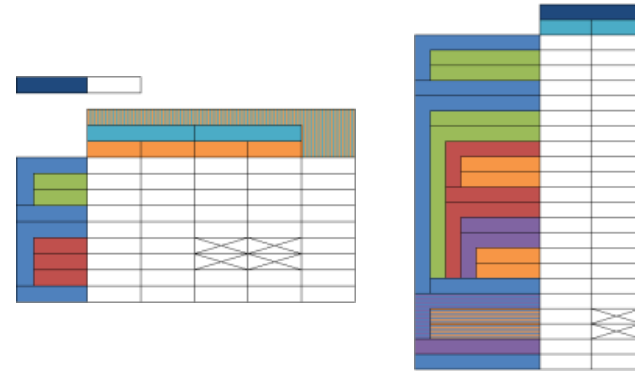
- All
- EMU (...)
- Spain
- Other than Spain
- Other than Spain in EMU (...)
- Other than EMU (...)

# Further application of bags



modelling of databases  
(e.g. by regions, by products, by clients, etc.)

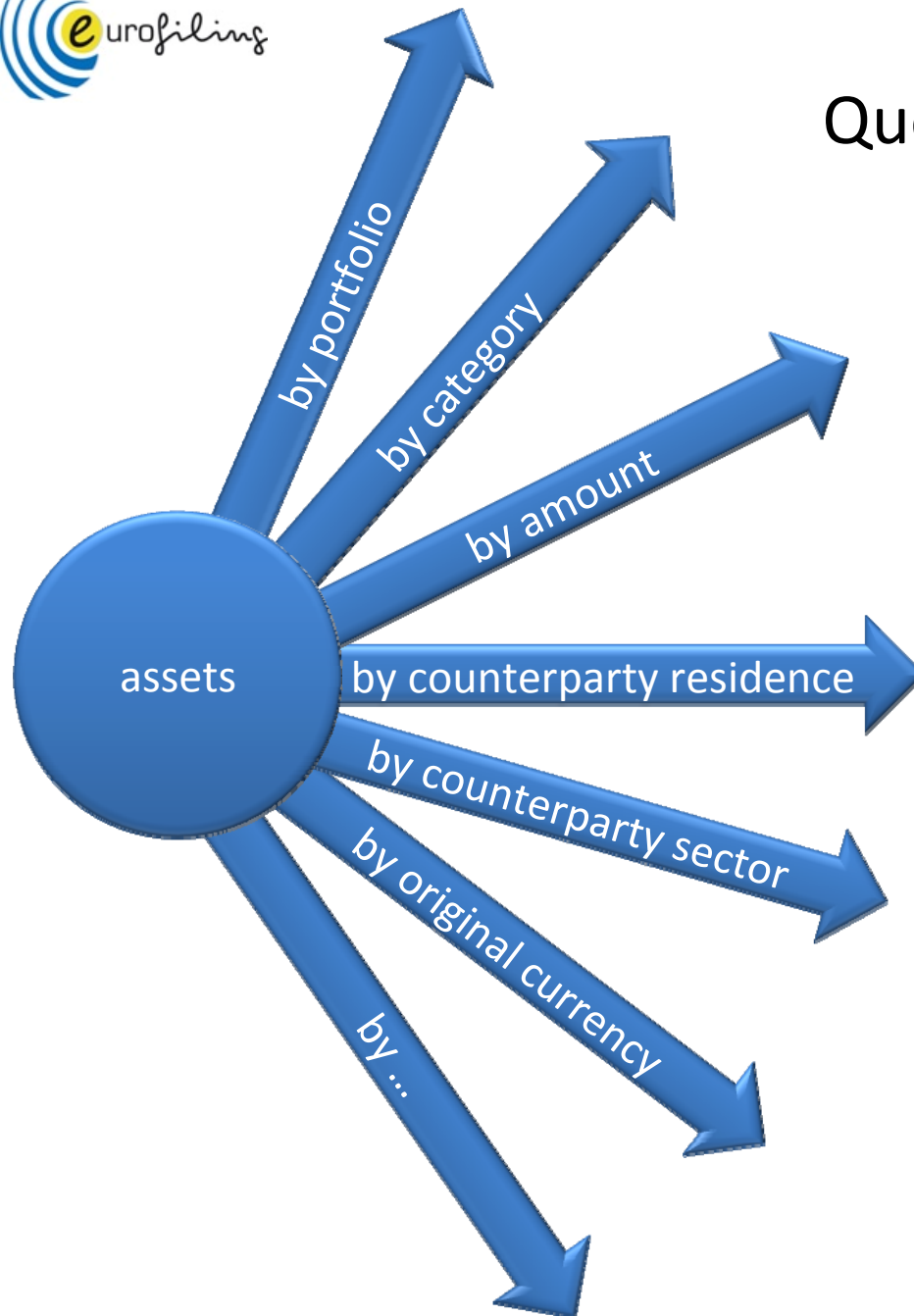
static views  
→



dynamic analysis  
→



## Queries



```
SELECT SUM(factValue)
FROM allFacts
WHERE
item="assets" AND
portfolio="held-for-trading" AND
category="derivatives" AND
amount="notional" AND
ctResidence="uk" AND
ctSector="credit institutions" AND
originalCurrency="eur" AND
riskType="commodity" AND
market="OTC" AND
...
```

**24.320.223,54**

# Change communication

## Template 3

- FINREP ver 1: 51 data points
- FINREP rev 2: 45 data points
- Identical data points: 0! due to:
  - different classification of instruments
  - addition of economic hedges to portfolios
  - introduction of breakdown by markets
- How to present this change?

**3. Derivatives held for trading**

By type of risk	By instrument	Carrying amount		Notional amount
		Assets	Liabilities	
Interest rate	Option/Cap/Floor/Collar/Swaption			
	IRS			
	FRA			
	Forward			
	Interest future			
	Other			
Equity	Equity forward			
	Equity future			
	Equity option			
	Warrant			
	Other			
Currency (FX)	FX forward			
	FX future			
	Cross currency swap			
	FX option			
	FX forward rate agreement			
	Other			

Financial Assets Held for Trading, Trading Derivatives, Equity Option

**3. Derivatives held for trading**

By type of risk	By product or by type of market	References	Carrying amount		Notional
			Assets	Liabilities	Total
Interest rate	OTC options				
	OTC other				
	Organized market options				
	Organized market other				
	of which: economic hedges				
Equity	OTC options				
	OTC other				
	Organized market options				
	Organized market other				
	of which: economic hedges				
Foreign exchange	OTC options				
	OTC other				
	Organized market options				
	Organized market other				
	of which: economic hedges				

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

Financial Assets Held for Trading, Trading Derivatives, Equity Option, Organized market

# Bags for FINREP ver 1 Template 3



### 3. Derivatives held for trading

By type of risk	By instrument	Carrying amount		Notional amount
		Assets	Liabilities	
Interest rate	Option/Cap/Floor/Collar/Swaption			
	IRS			
	FRA			
	Forward			
	Interest future			
	Other			
Equity	Equity forward			
	Equity future			
	Equity option			
	Warrant			
	Other			
Currency (FX)	FX forward			
	FX future			
	Cross currency swap			
	FX option			
	FX forward rate agreement			
	Other			






<b>Category</b>
Derivatives
<b>Portfolio</b>
Held for trading
<b>Base item</b>
Assets
Liabilities
Assets and/or Liabilities
<b>Amount type</b>
Carrying amount
Notional amount
<b>Risk Type</b>
Currency (FX)
Equity
Interest rate
<b>Instruments</b>
Option
Cross swap
Forward
FRA
Future
IRS
Warrant
Option/Cap/Floor/Collar/Swaption
Other than Option, Cross swap, Forward and Future
Other than Option, Warrant, Forward and Future
Other than Option/Cap/Floor/Collar/Swaption, IRS, FRA, Forward and Future

# Bags for FINREP rev 2 Template



### 3. Derivatives held for trading



By type of risk	By product or by type of market	References	Carrying amount		Notional
			Assets	Liabilities	Total
<b>Interest rate</b>	OTC options				
	OTC other				
	Organized market options				
	Organized market other				
	of which: economic hedges				
<b>Equity</b>	OTC options				
	OTC other				
	Organized market options				
	Organized market other				
	of which: economic hedges				
<b>Foreign exchange</b>	OTC options				
	OTC other				
	Organized market options				
	Organized market other				
	of which: economic hedges				

<b>Category</b>
Derivatives
<b>Portfolio</b>
Held for trading
Held for trading, hedge accounting
<b>Base item</b>
Assets
Liabilities
Assets and/or Liabilities
<b>Amount type</b>
Carrying amount
Notional amount
<b>Risk Type</b>
Currency (FX)
Equity
Interest rate
<b>Instruments</b>
Option
Other than options
<b>Market</b>
Organized market
OTC



## Idea of a „data point”

- identification of a **base item** and a component of each applicable **breakdown** describing this base item in order to **explicitly define a piece of information** (e.g. a cell in a template)
- **base item**: significantly distinctive basic financial term within a given set of information requirements
  - FINREP: assets, liabilities, income/gain, loss/expense, ...
  - COREP: equity, exposure, ...
  - MIR: NDER, APRD, transactions, ...
  - BSI: assets, liabilities, managed assets, ...but consistent within a framework (e.g. FINREP assets = BSI assets but FINREP assets < COREP exposure)
- **breakdown**: a view on a base item from a certain perspective: decomposition of base item according to a selected criterion
  - disaggregation (with ,+' or ,-' sign) of a total (e.g. counterparty sector or residence)
  - indicating certain notion (property) of a base item (e.g. carrying amount vs. accumulated unrealized gains/(losses) or CRD vs. IFRS reporting scope, ...)

Portfolio breakdown

- Portfolio: Held for trading - „acquired or incurred principally for the purpose of selling or repurchasing it in the near term”

Instruments breakdown:

- Instrument: Debt instrument - „contractual or written assurance to repay a debt”
- Held for trading portfolio includes different **instruments**: Derivatives, Loans, Debt securities, Equity instruments, ...
- Debt instrument can fall into different **portfolios**: Held-for-trading, Designated at fair value, Available for sale, ...

Table A. Interest income and expenses

Interest
<b>Derivatives held for trading</b>
<b>Debt securities</b>
Central banks
General governments
Credit institutions
Other financial corporations
Corporates
Retail
<b>Loans and advances</b>
Central banks
General governments
Credit institutions
Other financial corporations

**assets:** financial instruments owned by a reporting entity that shall generate economic benefits in the future

**liabilities:** 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 assets 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 1.1. Assets

<b>Cash and cash equivalents</b>
Cash on hand
Demand deposits and cash equivalents
<b>Financial assets held for trading</b>
Derivatives held for trading
Equity instruments
Debt securities
Loans and advances
<b>Financial assets designated at fair value through profit or loss</b>
Equity instruments
Debt securities
Loans and advances
<b>Available-for-sale financial assets</b>
Equity instruments
Debt securities
Loans and advances
<b>Loans and receivables</b>
Debt securities
Loans and advances
<b>Held-to-maturity investments</b>
Debt securities
Loans and advances
<b>Derivatives - Hedge accounting</b>

Table 1.2. Liabilities

<b>Financial liabilities held for trading</b>
Derivatives held for trading
Short positions
Deposits
Debt securities issued
Other financial liabilities
<b>Financial liabilities designated at fair value through profit or loss</b>
Deposits
Debt securities issued
Other financial liabilities
<b>Financial liabilities measured at amortised cost</b>
Deposits
Debt securities issued
Other financial liabilities

**2. Consolidated Income Statement**

<b>CONTINUING OPERATIONS</b>
<b>Interest income</b>
Financial assets held for trading [if accounted for separately]
Financial assets designated at fair value through profit or loss [if i
Available-for-sale financial assets
Loans and receivables
Held-to-maturity investments
Derivatives - Hedge accounting, interest rate risk
Other assets
<b>(Interest expenses)</b>
(Financial liabilities held for trading [if accounted for separately])
(Financial liabilities designated at fair value through profit or loss
(Financial liabilities measured at amortised cost)
(Derivatives - Hedge accounting, interest rate risk)
(Other liabilities)

# Data Points Model

## Format and content

- MS Excel based representation of data points
- worksheets:
  - base: declaration of base items (name, label, data and period type, ...)
  - one worksheet listing members and dimensions of each domain (name, label, item type)
  - one worksheet for subdomains of each domain (ELR name, hierarchy and order, alternative classifications)
  - data points structure table (optional): identification of each data point as a row indicating applicable base item and dimension values and referencing cells in business templates
  - one worksheet containing links to other worksheets and information needed for generation of XBRL taxonomy (file names, namespaces, etc)
  - one worksheet defining abbreviations and explicit description of each used data type (name, namespace, referenced schema)
  - worksheet for cross-template functional relationships (hypercubes)

# Data Points Structure Development process

- study the entire data model (e.g. FINREP Tables + Guidelines + IFRS7 + IAS39 + other)
- analyze the data model table by table, cell by cell:
  - identify a base item for a cell and list it down in a worksheet (if a base item is already listed – reuse it)
  - identify and name all breakdowns applicable to a base item in order to explicitly define the content of a cell; for each breakdown create a separate worksheet (unless a worksheet has been already created)
  - in each of these worksheets identify and name a value for each breakdown preserving the hierarchy (if applicable) with other already created values (or reuse an existing value); if a value is not applicable to an existing hierarchy create a new hierarchy
- review the base items and breakdowns and look for optimization (e.g. breakdowns of same kind)
- add necessary XBRL characteristics and remodel the Excel to the required format

Information Requirements and Data Models Overview

## **2. FINREP/COREP/BSI-MIR**

## Comparison of reporting frameworks (I)

	FINREP	COREP	BSI-MIR
Purpose	Standardization of supervisory financial reporting based on IAS/IFRS for banks (framework is not intended to cover all the disclosure requirements of IAS/IFRS, nor solo reporting)	Capital adequacy reporting. Check, if there is enough own funds to cover all the risk that institution face	BSI: Regular production of balance sheet of the money-creating (issuing) sector in EMU (stocks and flows) MIR: Type of information collected is quite different than in COREP and FINREP
Background	IAS/IFRS	Capital adequacy directive (based on Basel Accord and its amendments)	Banking Accounts Directive 5 (BAD) ESA 95 and System of National Accounts (SNA 93) IAS/IFRS
Stability	IAS/IFRS changes every year but not all changes are very significant from banking supervision perspective. Should be stable for at least 5 years.	Significant changes to the CRD (Basel II) in the future should not be frequent, but so far: CRD (2006), CRD II (2008), CRD III (2009), CRD IV (work in progress). Idea: Should be stable for at least 5 years.	Quite stable, because time series analysis is crucial
Structure	Based on core and non-core templates, which are inter-connected and complementary	Based on general (CA) and detailed (CR, MKR, OPR) information templates, which are inter-connected and complementary	BSI is based on a set of five monthly and quarterly tables, which are inter-connected and complementary

## Comparison of reporting frameworks (II)

	FINREP	COREP	BSI-MIR
Reporting population	Goal: all EU credit institutions and other supervised financial corporations Practice: All listed EU credit institutions	Credit institutions and investment firms across EU	BSI: EMU resident MFIs MIR: Comparing to BSI reporting population does not include central banks and money market funds (MMFs)
Consolidation scope	Mostly CRD scope of consolidation but IAS/IFRS scope of consolidation is also possible in some cases	CRD scope of consolidation. In practice insurance undertakings, investment funds and other less relevant financial institutions as well as non-financial subsidiaries are not consolidated.	Consolidation of business of all banking offices (registered or head office, and/or branches) located within the same national territory (the "host" principle). Non-banking subsidiaries are not consolidated
Valuation concepts	Fair value or cost/amortized cost (IAS/IFRS)	Risk, not the value is crucial, so for credit risk value adjustments and provisions, as well as credit risk mitigation technics are taken into consideration	BSI: In general: Deposit liabilities and loans shall be reported at their principal amount outstanding at the end of the month (write-downs shall be excluded from this amount). Items other than Deposit liabilities and loans can be reported according to IAS/IFRS Accrued interest of loans and deposits to be reported under remaining assets/liabilities MIR: Nominal amounts; Bad loans are excluded





# Information Requirements: ECB Statistics

REPORTING SECTOR	CL_BS_REP_SECTOR	Balance sheet reference sector breakdown codelist
	B	Credit and other institutions (MFI except MMFs and central banks)
BS ITEM	CL_BS_ITEM	Balance sheet item codelist
	L21	Overnight deposits
	L22	Deposits with agreed maturity
	L23	Deposits redeemable at notice
	L24	Repurchase agreements
	A20	Loans
	A21	Credit for consumption
	A22	Lending for house purchase
	A23	Other lending
	A25	A21 plus A23
	A2Z	Revolving loans and overdrafts, convenience and extended credit
	A2Z1	Revolving loans and overdrafts
	A2Z2	Convenience credit
	A2Z3	Extended credit
	A2A	Loans other than revolving loans and overdrafts, convenience and extended credit [A20-A2Z]
	A2AC	Loans other than revolving loans and overdrafts, convenience and extended credit [A20-A2Z] with collateral and/or guarantees
	A2B	Loans for consumption excl. revolving loans and overdrafts, convenience and extended credit [A21-A2Z]
	A2BC	Loans for consumption excl. revolving loans and overdrafts, convenience and extended credit [A21-A2Z] with collateral and/or guarantees
	A2C	Lending for house purchase excl. revolving loans and overdrafts, convenience and extended credit [A22-A2Z]
	A2CC	Lending for house purchase excl. revolving loans and overdrafts, convenience and extended credit [A22-A2Z] with collateral and/or guarantees
	A2D	Other lending excl. revolving loans and overdrafts, convenience and extended credit [A23-A2Z]
ORIGINAL MATURITY	CL_MATURITY_ORIG	Original maturity codelist
	A	Total
	D	Up to 3 months
	E	Over 3 months

- explicit and according to breakdowns/classifications

BSI_TABLE 2 (stocks)		A. Domestic			
		MFIs		Non MFIs	
		Cis	General government (S.13)		
		Total	Central government (S.1311)	Other general government	
				Total	State govern. (S.1312)
		(a)	(b)	(c)	(d)
12. Capital and reserves					
13. Remaining liabilities					
ASSETS					
1. Cash					
2. Loans					
Up to 1 year original maturity					
Over 1 and up to 5 years original maturity					
Over 5 years original maturity					

U-1(0087+012).A20.A.1.US.110.Z01.E

U-4(0002).A20.F.1.US.2121.Z01.E

U-4(0003).A20.I.1.US.2121.Z01.E

U-4(0004).A20.J.1.US.2121.Z01.E

# JEGR

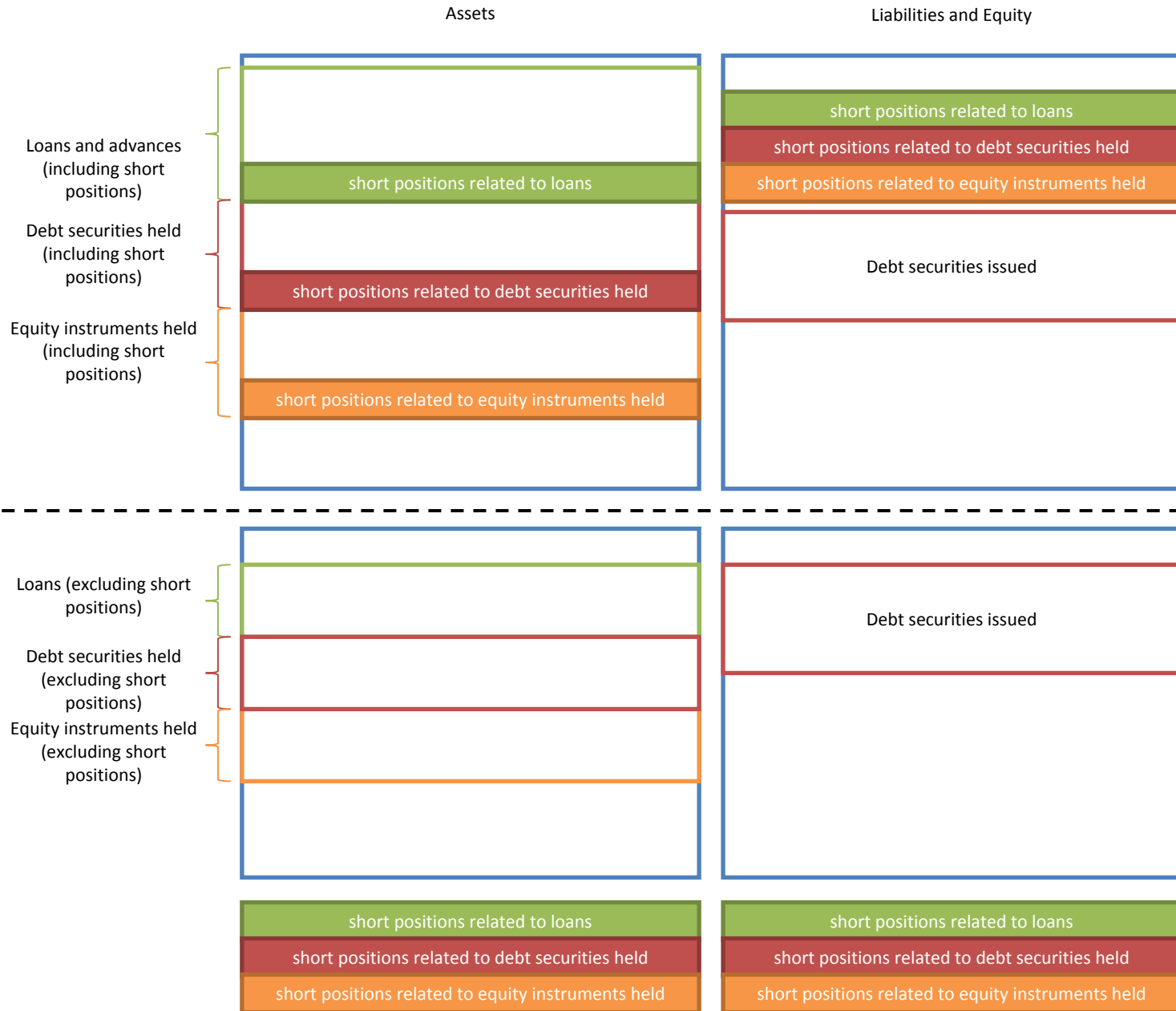
## Bridging Information Requirement

ECB	Counterpart sector classes		
	Revised FINREP	Current FINREP	CRD <sup>1)</sup>
MFI – Central banks	Central banks	Central banks	Central government/banks
Central government	General governments	Central governments	Central government/banks
Other general government		Non-credit institutions	Institutions
MFI – Credit institutions	Credit institutions	Credit institutions	Institutions
MFI – MMFs	Other financial corporations	Non-credit institutions	
Other res. sectors – OFI	Other financial corporations	Non-credit institutions	Institutions
		Corporates	Corporates
		Retail	Retail
Other res. sectors – Non-financial corporations (NFC)	Non-financial corporations	Corporates	Corporates
Other res. sectors – household (HH) and NPISH <sup>2)</sup>	Retail	Retail	Retail

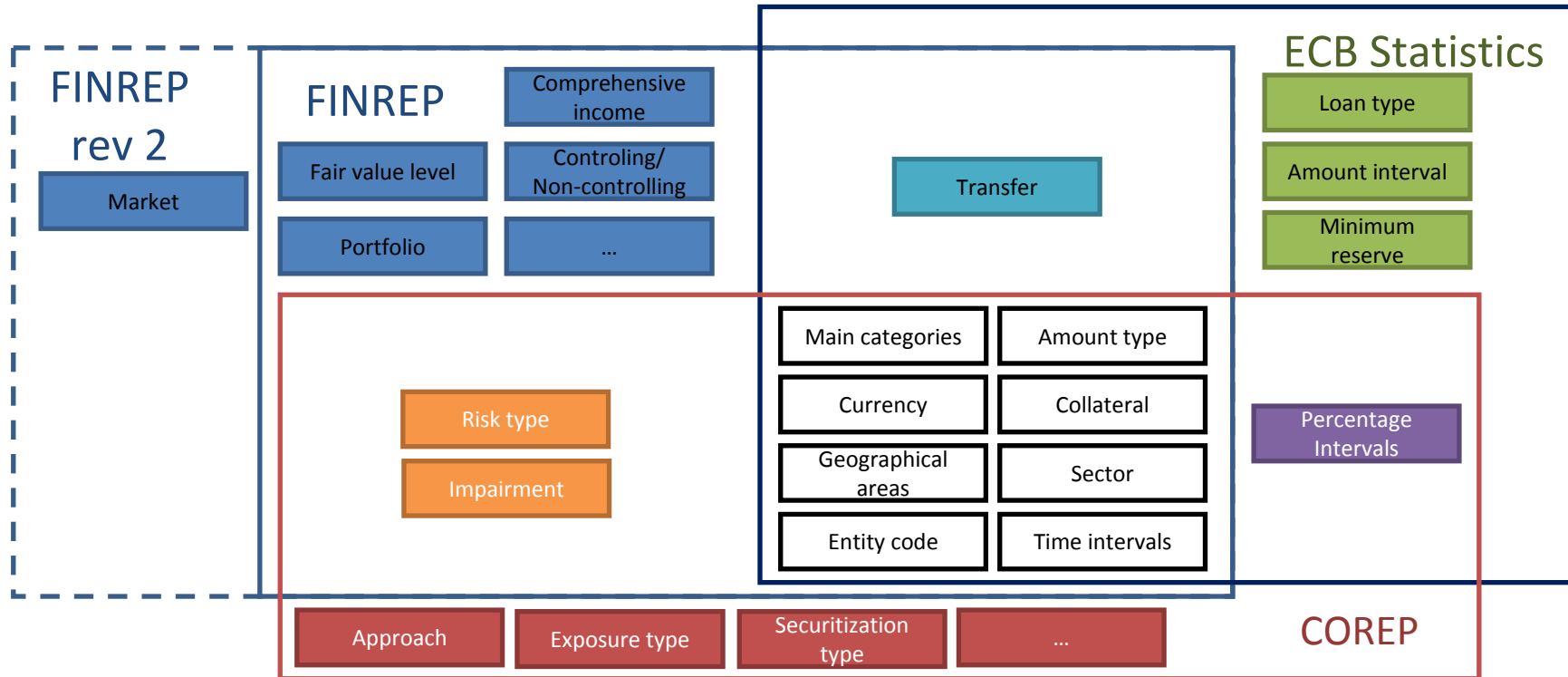
1) The CRD has two approaches. In the IRB approach, the “exposures classes” are classified in one of the categories included in the column. In the standardised approach, in addition to the “classes” included in Table 3, the “exposures classes” can also be classified in the following according to the circumstances of the items: “secured on real estate property”, “past due items”, “regulatory high-risk categories”, “covered bonds”, “securitisation positions”, “short-term claims on institutions and corporate”, “CIU” and “other items”. Exposures (or part of one exposure, where appropriate) shall be assigned to only one of the exposure classes.

2) Non-profit institutions serving households.

Reconciliation  
 ECB Statistics  
 FINREP

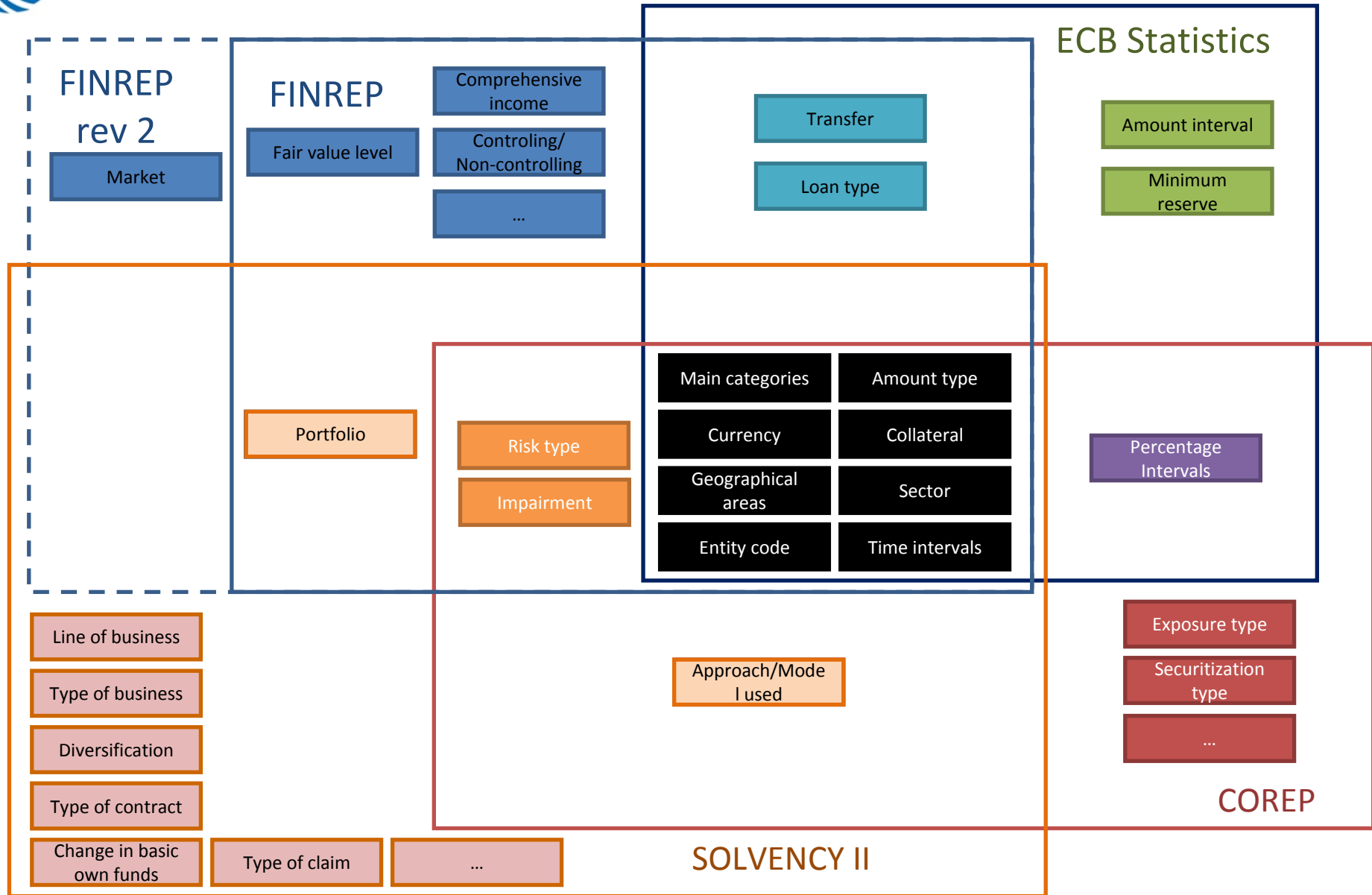


# Reuse of breakdowns



- chronologically FINREP created first (FINREP rev2 extends FINREP with 1 breakdown)
- ECB statistics (BSI-MIR) reuses 9 breakdowns of FINREP
- draft COREP reuses 8 breakdowns of both BSI-MIR and FINREP, one with BSI-MIR and two with FINREP

# Extension for a new framework: Solvency II



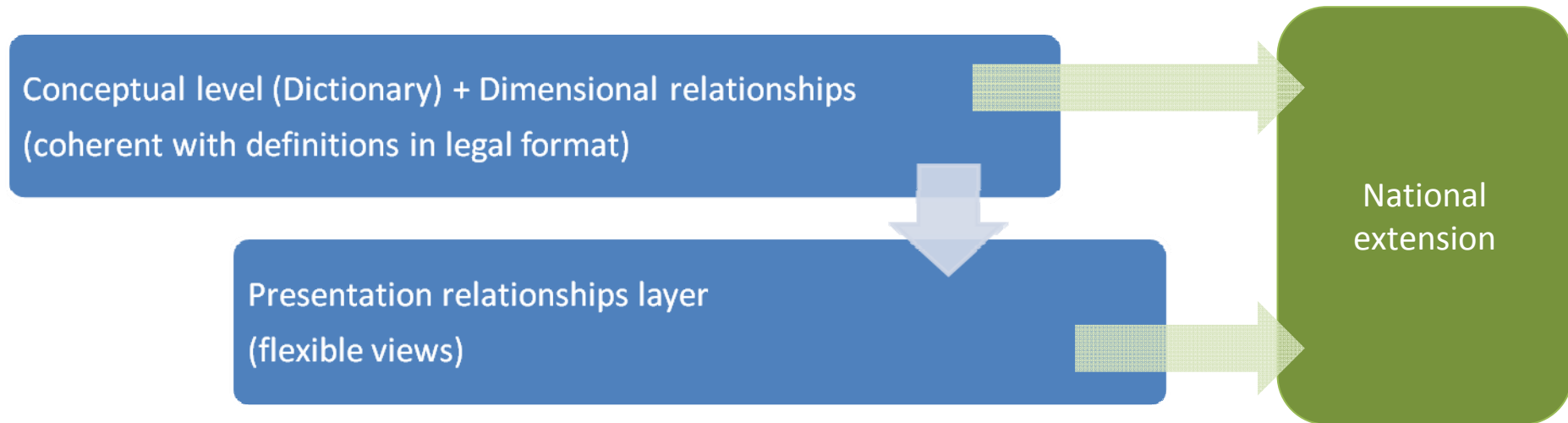
# Links

- BSI-MIR
  - DPM: [http://www.eurofiling.info/bsi-mirTaxonomies/BSIMIR\\_DPS\\_2010-06-25\\_0930\\_Clean.xls](http://www.eurofiling.info/bsi-mirTaxonomies/BSIMIR_DPS_2010-06-25_0930_Clean.xls)
  - Explanatory Documentation: <http://www.eurofiling.info/bsi-mirTaxonomies/XBRL%20BSI-MIR%20taxonomies%20%20Data%20Point%20Model.pdf>
  - Taxonomy: <http://www.eurofiling.info/bsi-mirTaxonomies/taxonomy.html>
- FINREP
  - Templates: [http://www.eurofiling.info/finrepTaxonomy/FINREPrev2-templates\\_20110119\\_includingRenderingCoordinates.xlsx](http://www.eurofiling.info/finrepTaxonomy/FINREPrev2-templates_20110119_includingRenderingCoordinates.xlsx)
  - DPM: [http://www.eurofiling.info/finrepTaxonomy/FINREP\\_DPMS\\_20100119.xls](http://www.eurofiling.info/finrepTaxonomy/FINREP_DPMS_20100119.xls)
  - Taxonomy: <http://www.eurofiling.info/finrepTaxonomy/FINREP%20Rev2%20XBRL%20taxonomy.zip>
- COREP
  - DPM: [http://www.eurofiling.info/corepTaxonomy/COREP\\_DPMS\\_20101231.xlsx](http://www.eurofiling.info/corepTaxonomy/COREP_DPMS_20101231.xlsx)

Architecture

## 3. Eurofiling Taxonomies

## Eurofiling Taxonomy Architecture - Layers



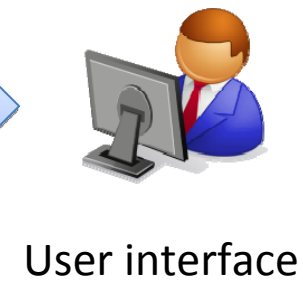
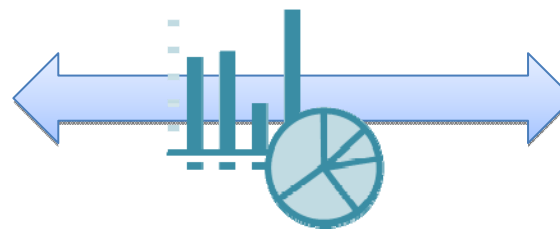
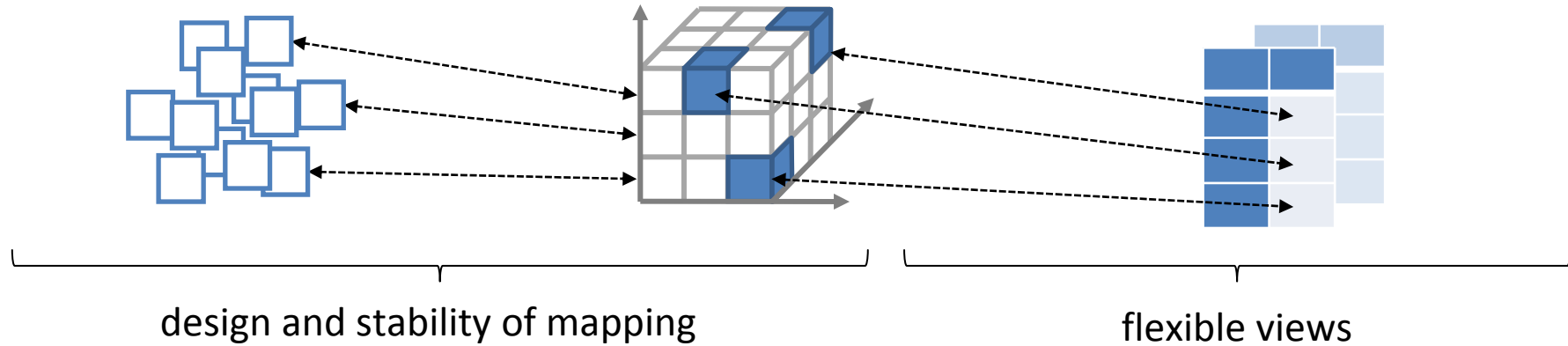
- aim: coherency, stability, flexibility (+ simplicity and efficiency)
- aspects: implementation and maintenance (both at filer and supervisor sides)

# Taxonomy Layers

**Dictionary**  
 Concepts declarations,  
 labels and references

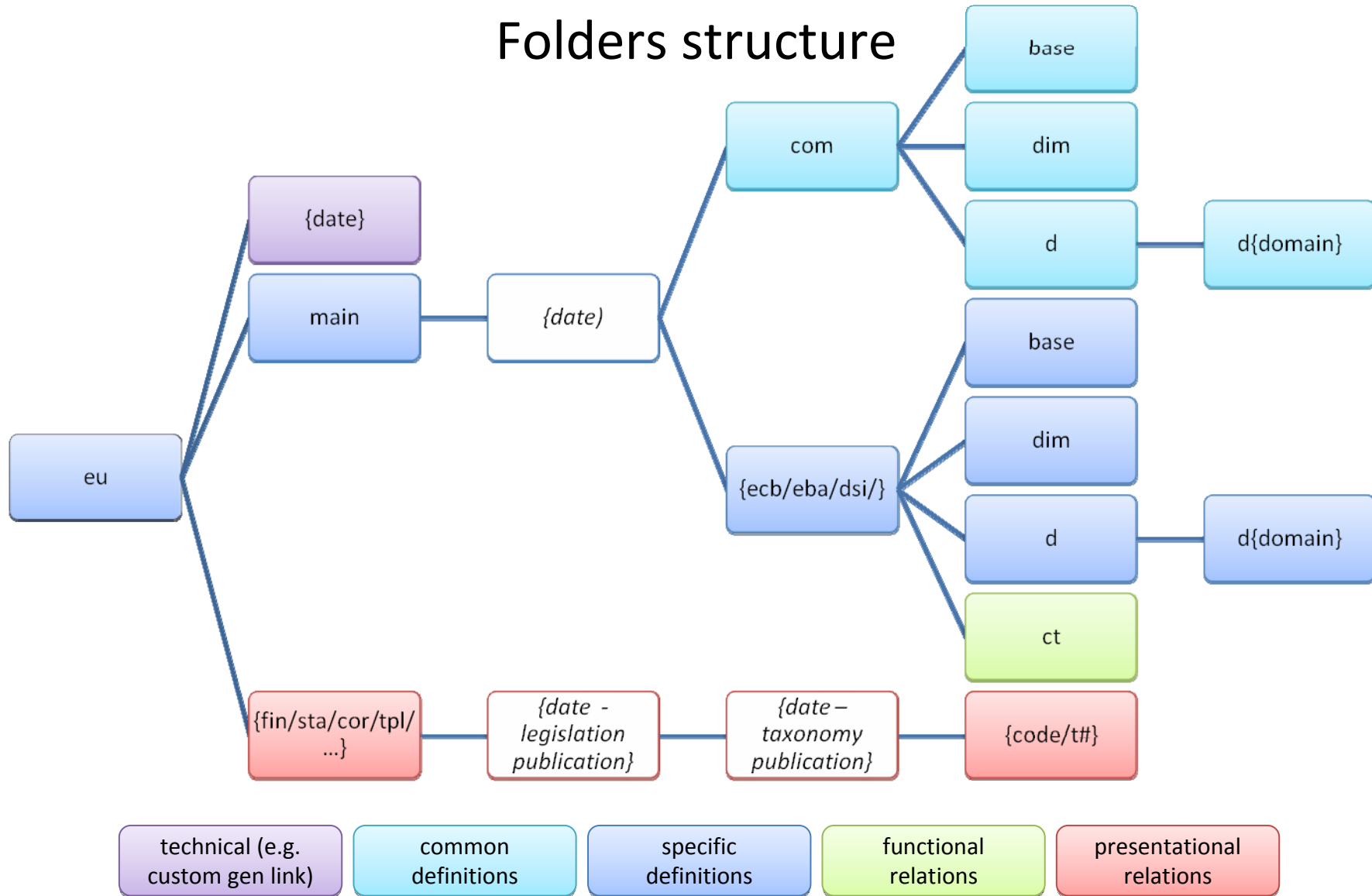
**Dimensional relations**  
 Complete model  
 of data requirements

**Presentation relations**  
 Current data requirements



# Taxonomy

## Folders structure

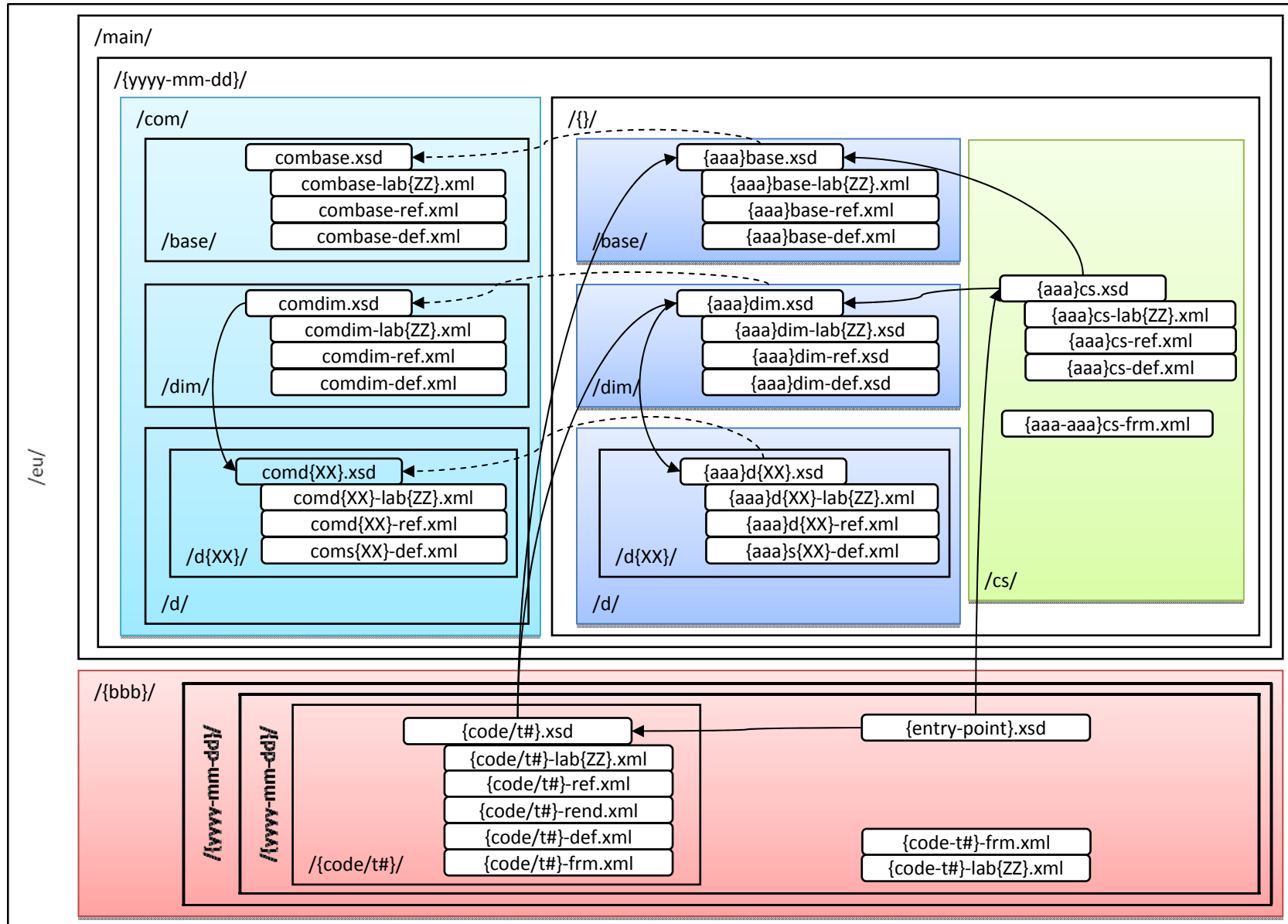


\*dates were skipped in this sample taxonomy

# Taxonomy Content

File type	Common dictionary	Specific (for certain information requirements) dictionary	Functional relationships	Presentational relationships (views)
schema	primary items, dimension items, domain members	primary items, dimension items, domain members	hypercube items	
label and generic label linkbase	general application labels for items, dimension (ELR) specific labels, labels for ELRs	application specific labels for items, dimension (ELR) specific labels, labels for ELRs	labels for data points, labels for ELRs	labels for rendering coordinates, labels for ELRs
reference and generic reference linkbase	general application references for items, dimension (ELR) specific references, references for ELRs	general application references for items, dimension (ELR) specific references, references for ELRs	references for data points, references for ELRs	references for rendering coordinates, references for ELRs
definition linkbase	structure/hierarchy of primary items and subdomains; application of subdomains for certain dimensions	structure/hierarchy of primary items and subdomains; application of subdomains for certain dimensions	cross template hypercubes (primary items in dimensional breakdowns)	
tables linkbase				view of each template
formula linkbase			cross application (information requirements) rules	cross template and template by template rules

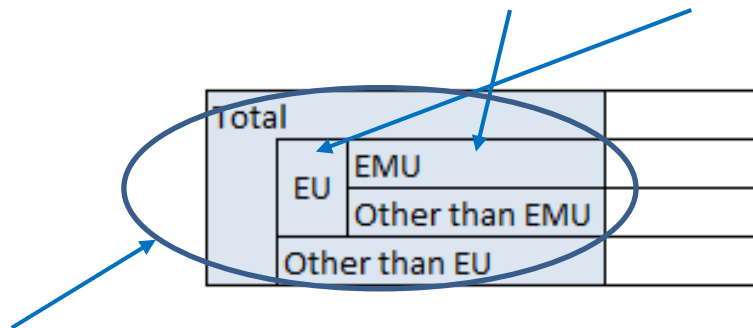
# Files and folders: Relations



# Tables linkbase

## Principle of operation

- split: templates (file level), tables within a template or sections of tables (ELR level)
- axis:
  - y: coordinates representing headers of row
  - x: coordinates representing headers of columns
  - z: coordinates representing implicit information (e.g. from title of a table), drop-down list above the table (e.g. CR-IRB), etc
- hierarchical structure of headers – nesting, abstracts, ...



- generic label and reference linkbases to store coordinates titles and references
- inheriting information from higher lever coordinates

# Tables linkbase - Example

BANCO DE ESPAÑA  
Eurosistema

Basic concept: Assets  
Location of activity: Spain  
Amount type: Outstanding

Z-axis ENTITY

Year Month P

		Residents in Spain		Residents in other states EMU			
		Euro	Foreign currency	Euro	Foreign currency		
		0081	0125	0205	0245	0285	
1. Cash (+/-)							
2. Loans (+/-)							
2.1. Monetary financial institutions (MFIs)	0006	0086	0126	0206	0246	0286	
2.2. Central Administration	0007	0087	0127	0207	0247	0287	
2.3. Other general government	0008	0088	0128	0208	0248	0288	
2.4. Other sectors	0009	0089	0129	0209	0249	0289	
3. Debt securities (+/-)	0010	0090	0130	0210	0250	0290	
3.1. Monetary financial institutions (MFIs)	0011	0091	0131	0211	0251	0291	
3.1.1. Up to one year	0012	0092	0132	0212	0252	0292	
	0013	0093	0133	0213	0253	0293	
	0014	0094	0134	0214	0254	0294	
	0015	0095	0135	0215	0255	0295	
	0016	0096	0136	0216	0256	0296	
	0017	0097	0137	0217	0257	0297	
4. Investments in money market (+/-) (FMM)	0020	0100	0140	0220	0260	0300	
5. Equity (+/-)	0025	0105	0145	0225	0265	0305	
5.1. Monetary financial institutions (MFIs)	0026	0106	0146	0226	0266	0306	
5.2. Other sectors	0027	0107	0147	0227	0267	0307	
6. Fixed assets	0030						
7. Other assets	0035						
TOTAL	0040	0120	0160	0240	0280	0320	

Counterparty residence  
Instrument original currency

Category of assets  
Counterparty sector  
Original maturity

Y-axis

X-axis

# Naming convention Principles

- General
  - Names of files and prefixes should be short, represented by code (mnemonic)
- File names
  - File names should be terse and coded according to the architectural diagram to facilitate performance during processing of taxonomies and instances
- Namespaces
  - Namespaces should adhere to the general architecture allowing separation of common primaries, dimensions and domains
- QName:
  - critical for mapping to XBRL
  - applied in XBRL Formulas, Eurofiling Rendering, etc (instead of XLink + XPointer *href*).
  - stable and independent from potential taxonomy changes
  - *include* instead of *import* for referencing common definitions from specific (FINREP/COREP/BSI-MIR/...) definitions

## Naming convention: Examples

Schemas	Prefix	Namespace	Applies to files
Primary items	base	http://www.eurofiling.info/base	Applies to Common, COREP, FINREP, Statistics and future modules
Dimension items	dim	http://www.eurofiling.info/dim	
Domains	d{domain}	http://www.eurofiling.info/d/{domain}	
Templates	t{#} ci	http://www.eurofiling.info/{fin/...}/t{#} http://www.eurofiling.info/{cor/...}/ci	
Complete scope hypercubes	{fin/sta}cs	http://www.eurofiling.info/{com/eba/ebc/...}/cs	

no date (only on official location and processing instruction inside of each file <?...?>):  
 <?officialURI http://www.eurofiling.info/eu/fr/xbrl/2010-01-27/sta/d/dTR/stadTR.xsd?>

prefix:localName	Description
base:mi9	monetary item, instant period type (eg. „Assets“)
base:md9	monetary item, duration period type (eg. „Changes in assets“)
base:pd10	percent item, duration period type (eg. „Voting rights“)
base:sd15	string item, duration period type (e.g. „Entity name“)
base:dd18	date item, duration period type (e.g. „Entry/removal date“)
ma:x1	member of „Market“ domain (e.g. „OTC“)
ga:pl	member of „Geographical and political areas“ domain: „Poland“
li:gt90d_le180d	member of „Time interval“ domain: „> 90 days and ≤ 180 days“
cd:code	typed domain: code

Presentation

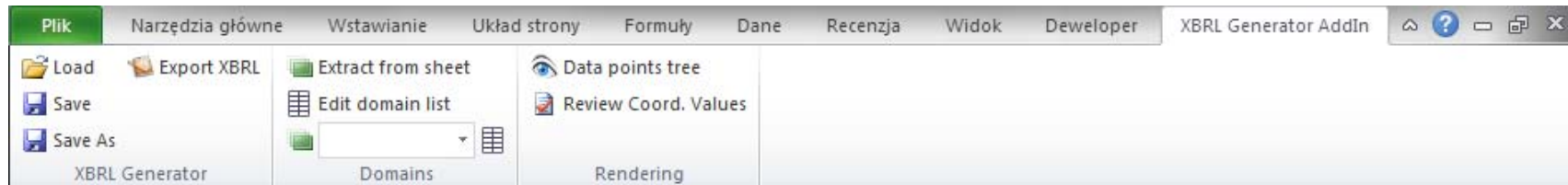
## 4. ExcelXBRLGen AddIn

## General information

- developed in order to facilitate creation of taxonomies according to the draft Eurofiling architecture out of the Data Points Model in MS Excel format
  - automatic creation of primary items, dimensions, domains (structures of members) taxonomies consisting of schema files and linkbases (label and definition) out of the Excel DPM
  - interface for definition and output of tables linkbase (according to Eurofiling draft rendering schema and algorithms)
- important characteristics
  - requires .NET (v 3.5) and Excel libraries (2007 or higher) in use
  - no formal requirements set upfront (functionalities created and added on-the-fly)
  - no XBRL validation (some rules included for errors discovered during testing)
  - limited customization possible with many rules hardcoded

# Overview of functionalities

- hardcoded taxonomy architecture (common and EBA/ECB/EIOPA/... specific definitions, separate taxonomies for base, domain and dimension items) and possibility to customize basic generation data (file names, namespaces, data types)
- reads information from worksheets in the correctly formatted DPM Excel workbook: definitions of items (worksheets discovered by hyperlinks or set manually) and relations (basing on worksheet name including "\_D" at the end) and allows for editing in tool specific interface
- **generates taxonomies (common and domain specific) for:**
  - primary items: items definitions (schema), labels (linkbase)
  - dimensions: explicit and typed (schema, typed domain is referenced), labels (linkbase)
  - domains: members (schema) and their standard labels (linkbase), subdomains for dimensions – structures and specific labels (linkbases with custom ELRs)
- **table linkbase (and associated files) design interface and output**
  - uses information extracted from the DPM Excel worksheet in the step described above
  - outputs table linkbase files (schema, rendering and generic label linkbases, including folders structure)
- save of extracted and rendering information (zipped xml file in custom format with .exc extension); load possible at any time in future (prompts for files: DPM Excel and Excels used for rendering)



- OpenFiling/Tools: [http://www.openfiling.info/?page\\_id=67](http://www.openfiling.info/?page_id=67)
- source code: <http://www.openfiling.info/wp-content/uploads/data/ExcelXbrlGenSources.zip>
- executable: <http://www.openfiling.info/wp-content/uploads/data/ExcelXbrlGenMinimalSetup.zip>
- instalation manual: <http://www.openfiling.info/wp-content/uploads/data/ExcelXbrlGenInstallation.pdf>
- user guide: <http://www.openfiling.info/wp-content/uploads/data/XBRLTaxonomyGenerator.pdf>

# 5. Proof-of-Concept

# Proof-of-concept materials

- original templates:
  - set of 11 templates (original and normalized, including rendering coordinates according to the Data Points Model)
  - scope: FINREP/BSI-MIR use cases
  - including IFRS 9 (anticipation of change)
- data points model:
  - base items and breakdowns
  - common (COM) and domain specific items (DSI)
  - taxonomy generation data (XBRL Tax Generator input format)
- XBRL Taxonomy Generator load file (for tables 3, 5 and 7)
- Taxonomy:
  - main components:
    - primary items, dimensions, domains and general subdomains for COM and DSI
    - cross template hypercubes
  - templates:
    - table linkbase (syntax according to the Eurofiling approach)
    - formula linkbase (template specific and cross template)

## Where to find it?

- PoC overview:  
<http://www.eurofiling.info/finrepTaxonomy/EurofilingProofOfConcept.pptx>
- Data Points Model:  
<http://www.eurofiling.info/finrepTaxonomy/DataPointsModel.xlsx>
- Original templates (tables):  
<http://www.eurofiling.info/finrepTaxonomy/OriginalTemplates.xlsx>
- XBRL Taxonomy Generator load file:  
[http://www.eurofiling.info/finrepTaxonomy/XBRLTaxonomtGenerator\\_SampleT03T05T07.zip](http://www.eurofiling.info/finrepTaxonomy/XBRLTaxonomtGenerator_SampleT03T05T07.zip)
- taxonomy: <http://www.eurofiling.info/finrepTaxonomy/taxonomy.zip>



<http://www.eurofiling.info>

<http://www.openfiling.info>

**Thank you!**