

## Data Point Model database

March 2014

### Introduction

When developing, using the Data Point Modelling methodology<sup>1</sup>, the Data Point Model (DPM) representation of the early for the draft Implementing Technical Standards (ITS) for CRD IV/CRR the EBA decided to further enhance the implementation of the methodological approach, by introducing a relational database as the repository for the DPM metadata, instead of relying solely on MS Excel data structures. For convenience of communication reasons, MS Access was chosen to support the dissemination of this database.

One of the main advantages of this technical component is to impose a series of logical constraints on the model, and enabling the realisation of a series of automatic consistency checks that would not be possible otherwise, thus contributing decisively to shorten the time needed to achieve the desired level of quality, on a DPM that categorises over 30,000 data points.

Another considerable benefit from the database is the possibility of defining many different views on the same metadata content, according to the needs of the user who is trying to understand the reporting framework, and the link between the business templates and the dimensional data points, which are now explicitly defined in the DPM.

The database model is a meta-model, in order to be used in any reporting domain other than COREP/FINREP, with a relatively low level of abstraction, focusing directly on the main concepts that are used in data point modelling (e.g. *framework, table, table cell, dimension, member, domain ...*). As regards the dimensional concepts, they basically share the same definitions found in analytical systems, which makes possible a very straightforward connection between both ends of the reporting chain.

The meta-model is not bound to any particular technology, and therefore XBRL specific constraints, for example, are not reflected in the DPM if they would reduce the clarity of the model. In order to streamline the process of automatic translation from the DPM to

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<sup>1</sup> See e.g. <http://archive.xbrl.org/24th/sites/24thconference.xbrl.org/files/TSMT9AndreasWeller.pdf> , <http://www.eurofiling.info/finrepTaxonomy/DPM-Formal-Model.pdf> , <http://www.eurofiling.info/dpm/>

XBRL taxonomies, however, some additional model elements have been added, and several fields containing XBRL specific properties (e.g. codes) are included.

Compared to the first version of the meta-model expressed in the database released in November 2013, this release of the model contains some small changes, primarily around the representation of tables and templates and the linkages to reports/modules and taxonomies, and the representation of changes between versions of taxonomies.

In particular in this version the evolution of reported data, and in a few cases the re-expression of conceptually identical information using categorisations, and the indication of the notional continuity of this data series through the recategorisation is expressed. This is to enable the understanding of the history of unique data points that is a fundamental requirement for data warehousing and time series analysis.

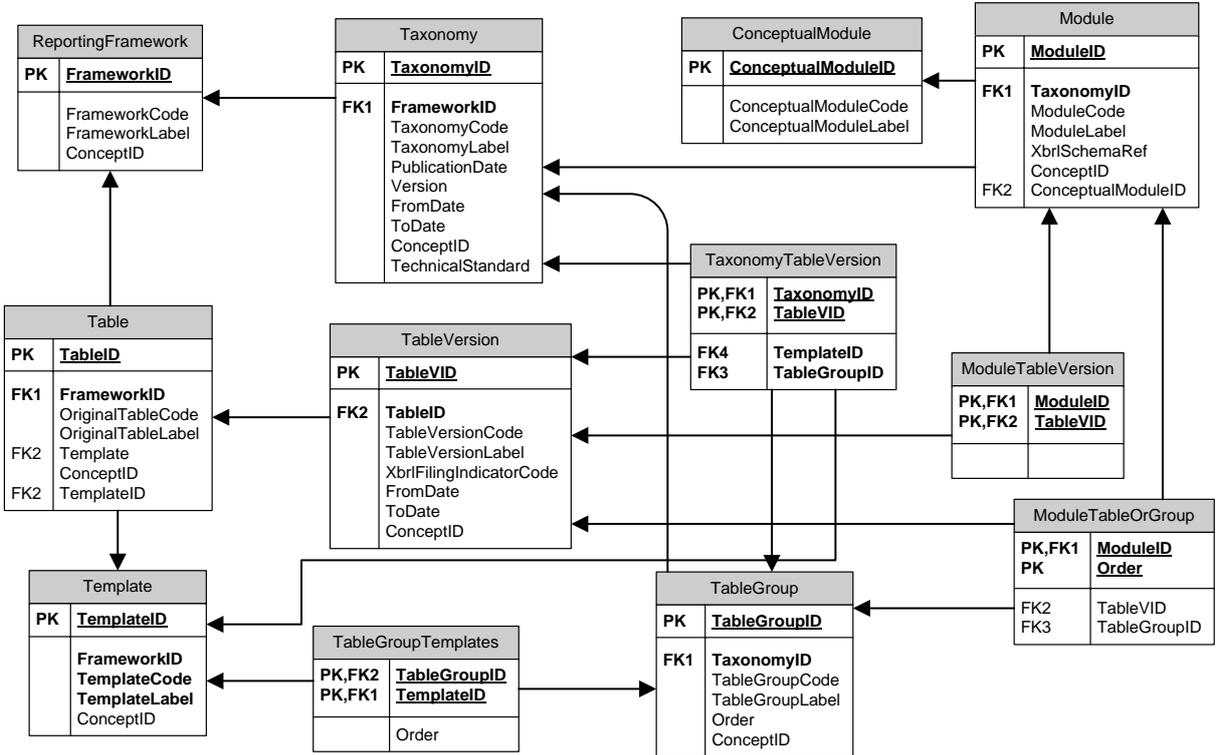
### Structure of the database

The meta-model is basically structured around the representation of the templates' metadata, the dimensional concepts used to categorise the data, and the links between them, which is the actual categorisation.

#### Tables and table groupings

Tables belong to a Reporting Framework (currently either COREP or FINREP); most of the time the concept of *table* will be the same as business *template*, except when, for modelling reasons, a template has had to be normalised and split into two or more tables (e.g. C 09.01 (CR GB 1) becoming C 09.01.a and C 09.01.b).

(In the following diagrams, the arrows represent relationships that must be read as "belongs to a" - i.e. indicating a *many-to-one* relationship, pointing from the many to the one).



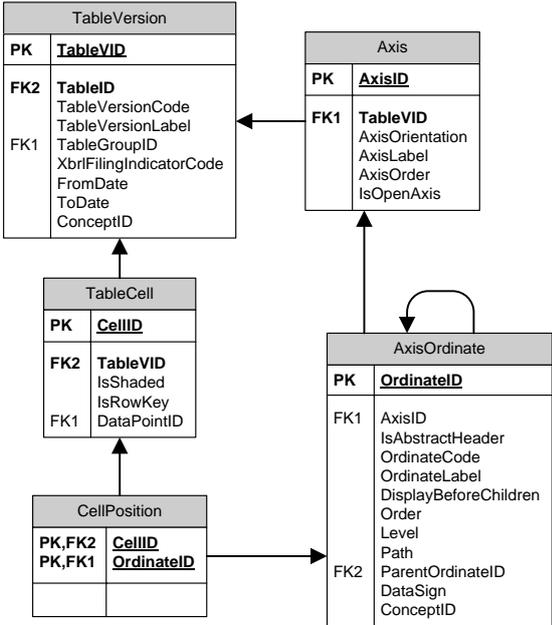
The reporting framework and the templates and (sub)tables within them are relatively stable concepts, that may persist over several variations and updates to the specific practical reporting requirements or technical implementations.

In contrast a specific description of the classification of these tables and the data points within them at a particular point/period in time is referred to in the model as a Taxonomy, with the specific description of a particular table within a taxonomy being represented by a TableVersion, several of which may represent the evolution of a particular conceptual Table over time.

Those tables representing parts of a template are linked to the template they represent. Templates may be grouped, for information, into TableGroups, representing subject areas (e.g. Capital Adequacy, Credit Risk etc.)

Modules represent the major units of reporting, collecting together a set of tables that could potentially be reported in a single submission. The tables included in a particular module are indicated by the ModuleTableOrGroup relationships, which either links a specific TableVersion, or a TableGroup (and any contained TableGroups or TableVersions) to module. Additionally the ModuleTableVersion table clarifies the individual table versions that are included in a module (in case only a few tableversion items from a table group are included in a particular module).

Table layout



The physical layout of a table (TableVersion) is described in terms of axes. An Axis represents either the rows, columns, or sheets of a table, which are "X", "Y" and "Z" axes respectively (the possible values of AxisOrientation). Each possible value along each axis (i.e. the individual row, column, or sheet) is called an AxisOrdinate.

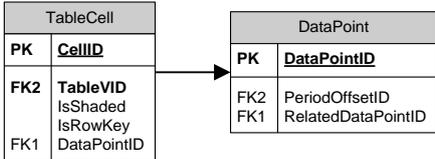
This decomposition of tables is key to the modelling process, which categorises each individual value on an axis (around 6000 values), instead of each individual cell (there are more than 80,000 table cells).

There are in the framework several different kinds of tables. Most have a fixed structure, with one single sheet, while others can have

multiple sheets with the same structure (e.g. C 08.01 (CR IRB 1)), or even a variable number of sheets (e.g. C 09.01 (CR GB 1)). Also, some tables have a 'list' format, that is, an open structure where rows are identified by typed key data, and repeating an indeterminate number of times, depending on the data being reported (e.g. C 14.00 (CR SEC Details))<sup>2</sup>.

The TableCells are generated in the database, by crossing the ordinates of the axes of each table. Around 50%<sup>3</sup> of all table cells are grey-shaded, either because data is not being required, or because the row x column combination has no logical meaning.

Each table cell (not considering the grey-shaded) corresponds to one, and only one, informational fact, called a DataPoint; however, there are some data



<sup>2</sup> This is indicated by the axis property IsOpenAxis

<sup>3</sup> Although nearly 30% of notional table cells are trivially "grey-shaded" since either their row or column is what is called an abstract header, i.e. just a descriptive/informational part of the table layout, not representing any intended data entry, and that entire row/column is expected to be represented simply as a header on one or more other row/columns, or shown as grey.

points represented in multiple table cells. In the latter case the table cells contain exactly the same piece of information, and so share exactly the same categorisation in the DPM.

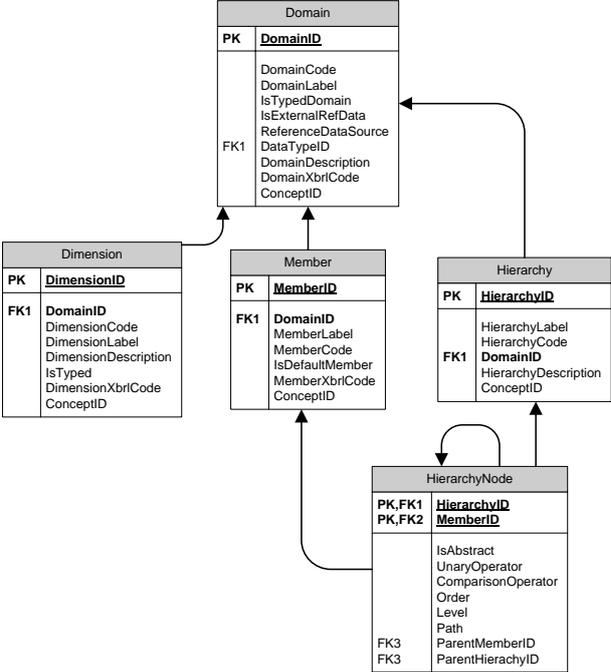
Dimensional Data Model

The dimensional concepts represented are Domains, Dimensions, Members, and Hierarchies.

Dimensions are the different categories used to describe the data points (e.g. *Counterparty sector*), and Members are the actual instances of those categories (e.g. *Central banks*).

For instance, the cell in FINREP table 8.01.a, row 090, column 010, is categorised in the DPM by the following five pairs of *[dimension].[member]*:

- [Base].[Liabilities]*
- [Metric].[Carrying amount]*
- [Main category].[Deposits. Redeemable at notice]*
- [Accounting portfolio].[Financial liabilities held for trading]*
- [Counterparty sector].[Central banks]*



All members of a dimension must belong to the same Domain. A domain groups members of the same type, corresponding to concepts with similar semantic nature, either abstract like *Type of risk*, or more concrete like *Currency*. Some (most) domains are “closed”, i.e. have a predefined and restricted number of members (e.g. *Countries*), and others are “open”, since we cannot enumerate all possible instances (e.g. *Legal Entities*).

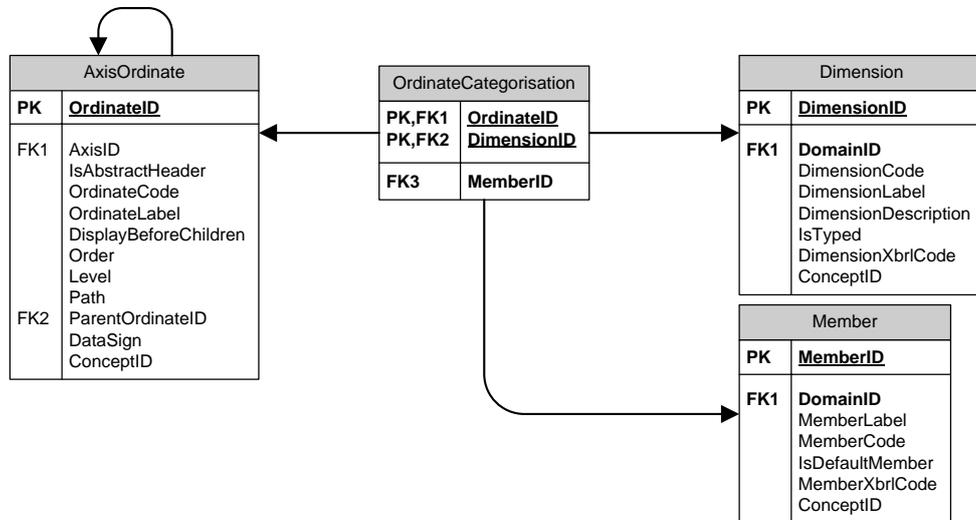
Dimensions are not always simply direct one to one equivalents of domains, because they may represent a particular *role* in the model. For instance *Residence of the counterparty*, *Location of the activities*, and *Country of the market*, are all different dimensions that take their members from the *Geographical area* domain. Thus the same member can belong to different dimensions, and two different dimensions from the same domain can categorise the same data point<sup>4</sup>.

Hierarchies indicate how members relate to each other, define subsets of members, and can also define the aggregations from lower to upper levels in the hierarchy.

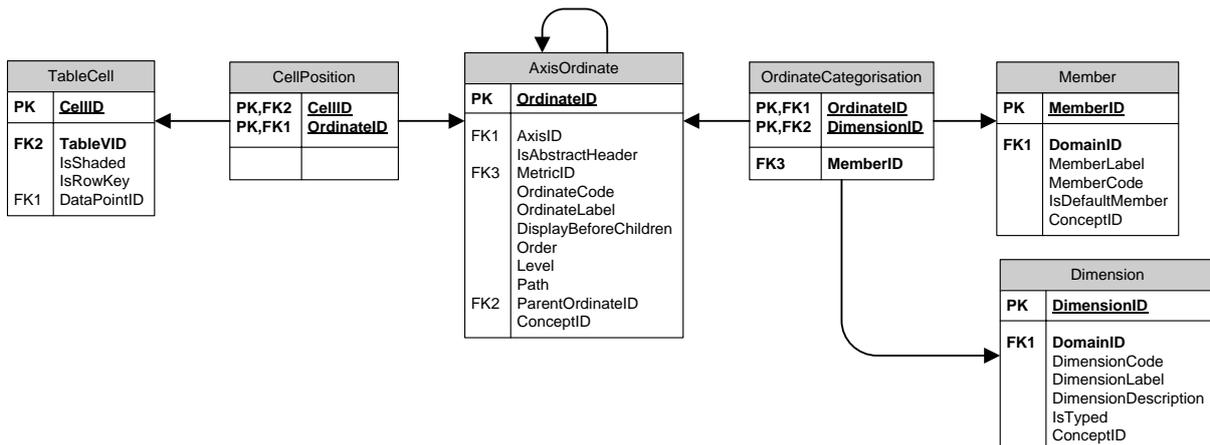
<sup>4</sup> But of course, the same dimension cannot be used to categorise a data point twice.

## Dimensional Analysis of templates

When describing the templates, business experts define the set of (pairs of) dimensions and members that categorise each row and column. If there is a 'z-axis', multiple sheets are generated, and the dimension and members associated with each sheet as a whole must also be specified.



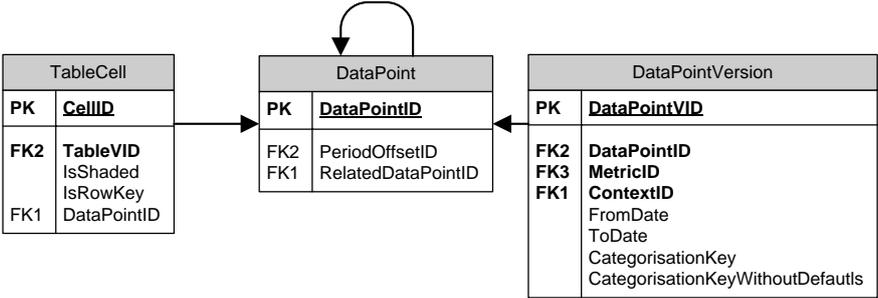
It is possible to trace from a table cell, through the axis ordinates of the cell to identify the complete categorisation of each individual table cell, resulting from the union of the categorisation of its axis ordinates (sheet, row, and column).



Data point modelling is an iterative process. In each iteration a set of consistency checks is applied to all the cells of the framework, to validate the model from a logical perspective, checking for cases of missing mandatory dimensions<sup>5</sup>, or duplicate dimensions, for instance.

<sup>5</sup> All table cells that are expected to contain reported data must have as a logical minimum a "metric" dimension value, indicating the fundamental nature of the value being reported. In this data point model, it is also expected that most data points are also categorised in terms of the "Base" and "Main Category" dimensions.

Finally the data points are “discovered” by identifying the unique combinations of pairs [dimension].[member] throughout the complete set of categorised cells<sup>6</sup>.



The outcome of this automatic process needs finally to be analysed by the business experts, as there are two possible reasons for different cells pointing to the same data point: either the cells contain exactly the same business information, and so the result was expected (or then realised as true), or there is a mistake that needs to be corrected in the model, requiring a new template analysis.

Conversely, there is also the possibility of two cells that are known *a priori* to be the same data point not showing the same categorisation, which also calls for another look at the analysis.

A DataPoint represents a specific item of business information. In future versions of the DPM it is possible that the specific categorisation used to describe/identify this business information might change – for example new more specific members may be added to a domain, or a dimension might be realised to be expressing two independent concepts, and be broken into two dimensions. To indicate that the underlying meaning of the business concept is not changing, just the categorisation of it within a taxonomy<sup>7</sup>, DataPoints are related to one or more DataPointVersions, which represent the categorisation of a DataPoint which is/was valid during a specific period of time. Clearly in this first version all DataPoints map directly to a single DataPointVersion.

Validation Rules

Data validation rules are also represented in the Data Point Model database in a semi structured format, please see accompanying files for a brief outline of the representation of these rules.

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<sup>6</sup> For illustration, a string consisting of the concatenation of all dimension-member pairs, sorted alphabetically (a “CategorisationKey”) is given for each DataPointVersion, this should be unique for all DataPointVersions in force at a particular date. A similar string is given for each AxisOrdinate, indicating the dimensional attributes contributed by that ordinate. Additionally, a field containing the categorisation key, but omitting any items that are considered the “default” value for a dimension is provided for DataPointVersions. This would be of use when analysing the mapping to and from XBRL (such defaults do not appear in XBRL contexts). Note however that the current version of the CRD IV model no longer explicitly uses such defaults to categorise data points, so the values in the two fields are at present the same. The CategorisationKeyWithoutDefaults fields may be considered deprecated, and may be removed in future versions.

<sup>7</sup> And so indicate, for example, that time series comparisons of the value of this data point including values from before and after the re-categorisation are valid.

## Appendix 1 – The representation of “Open” Tables

The model contains two major types of tables, “closed” – where each axis of the tables has all its required values explicitly listed, and therefore the precise size of the reported table is known, and “open”, where one or more axis is “open” (allows a variable number of entries, chosen either from a restricted list (e.g. counterparty sectors), or of a particular type (e.g. any integer).

Closed tables fall into two main types, those with X and Y axes only (which are simply plain tables), or those that also specify a Z axis, and are made up of multiple sheets, each with a complete copy of the table, one for each ordinate on the Z axis.

Open tables also fall into two types – lists and tables with optional sheets. Tables with optional sheets are simply normal tables with an open z axis, for which a copy of the table should be completed for each applicable values. The open z-axis for these tables typically allows values chosen from an explicit domain (e.g. a sheet per currency or per country where significant exposures are present etc.).

List tables are slightly more complex, they represent a table where a series of rows with identical columns must be entered, one for each item of a particular kind reported (e.g. a row per entity in a banking group, a row per security held, a row per transaction etc.). These tables have an open y-axis.

In addition, in version 2.1 a table (F 34.00.c) has been added, where a series of columns must be entered, one for each reported currency, this is an open x-axis.

For open axis tables, the unknown number of entries on the axis is represented in the DPM database by an AxisOrdinate with OrdinateCode of “999”.

The acceptable values for the “key” value identifying a specific row/column/sheet (as appropriate) in an open table, which of course must be unique, may, depending on the data type of the key dimension, either be a completely unconstrained string or integer (for example), or may be a value from a predefined “domain” (list) of values. When a value from a domain is required, the valid possibilities from that domain may be further constrained to be a value contained within a specific “hierarchy” (i.e. tree) of values. This is indicated via the OpenAxisValueRestriction table, which will also indicate whether the root member of the hierarchy is an acceptable value or not (generally not).

For open y axis tables, the anticipated rendering involves a special column, into which the identifier of each particular row is entered. In many cases this identifier will simply be a (otherwise meaningless) number (e.g. a line number). In the database this is represented by the row AxisOrdinate (“999”) being associated with an open dimension describing the nature of this identifier (such as the code of the security or obligor grade), and a Member with MemberID 999 (to indicate that the entire row is associated with a (unknown) value from the dimension). The columns axis of these tables includes an AxisOrdinate which is also associated with this open dimension and has the field IsRowKey set to true, which represents the column into which this code will be entered.

It should also be noted that there is a table with open rows which uses a two field “compound key”, i.e. where the *pair* of values from two separate special columns is what uniquely identifies the row.

## **Data points for open tables**

For “open” tables (i.e. tables with open z (C 09.02), y (C 27.00), or x (F 34.00.c) axes), the number of potential values is unknown. Since each copy of the basic repeating unit of the table (i.e. either sheet or row) is identical in attributes to the others, except for the value for the open dimension, in the DPM this repeating unit is represented only once, with one set of datapoints. This means that in an actual report, each there will be many facts (one for each sheet/row) that are associated with the same data point (distinguished by the associated value for the open dimension).

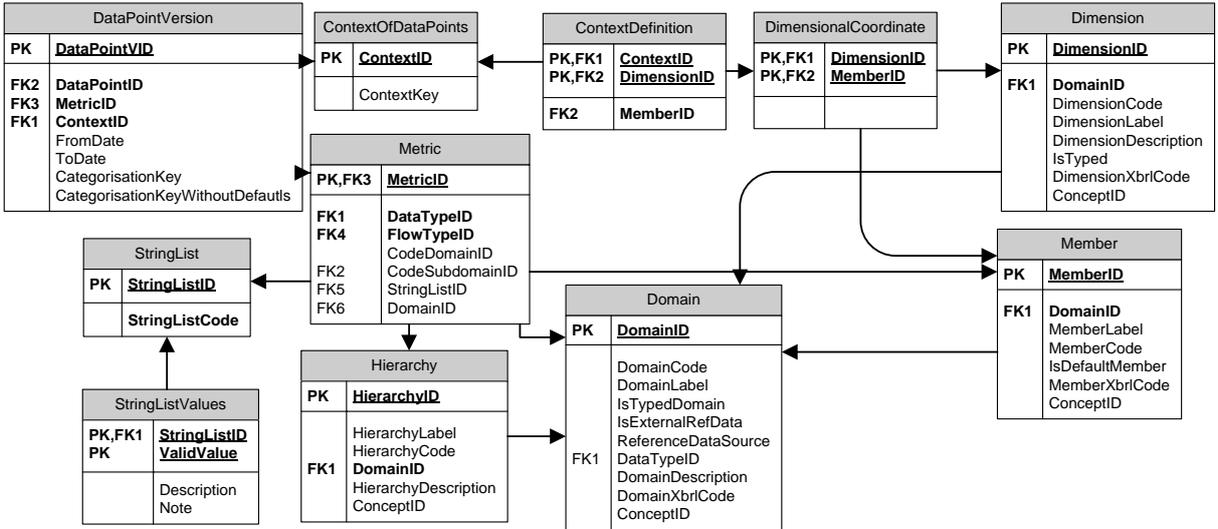
In contrast, “closed” tables with multiple sheets (e.g. C 07.00.a) have a distinct, known dimensional attribute set for each sheet, the cells on different sheets can be distinguished, and so each is identified in the model as a unique data point.

## Appendix 2 - Physical Concerns – towards XBRL

In order to illustrate the link to the physical implementation of this Data Point Model for second level reporting from National Supervisory Authorities to the EBA, which is expected to be implemented in XBRL, some additional tables have been included.

Data facts in an XBRL document are identified via a combination of “primary item”, which corresponds to the metric of the DPM, and a reference to a “context” which contains a set of dimension-members pairs<sup>8</sup>. One of the DPM dimensions, *Metric*, has been chosen to map directly to the primary item<sup>9</sup>, and the remaining dimensions that categorise a data point will be represented in the context.

To represent this, each DataPointVersion is linked both to a Metric entry, which expresses the (fundamental) meaning, data type<sup>10</sup> and “flow type”<sup>11</sup> of the data point (and is linked to a member of the *Metric* dimension), and to a ContextOfDataPoints entry, which represents the unique set of the remaining dimension member pairs<sup>12</sup>.



The identifier of members used in XBRL are given by the MemberCode field, and the canonical namespace prefix for a domain is given by the DomainCode of the associated domain.

Restrictions on the allowed values for a metric (i.e. for the cell(s) where that metric is used) are given by the data type, and potentially further indicated

- for strings – by an associated StringList, which enumerates the allowed values.

<sup>8</sup> As well as a date or date-range and an identifier of the entity the fact relates to.  
<sup>9</sup> Hence each “metric” option is also a member of the Metric domain. For simplicity the MemberID is used also as the MetricID).  
<sup>10</sup> Money, string, date etc.  
<sup>11</sup> Whether the value is a level, balance or “stock”, or measures a change in something, such as a “flow”.  
<sup>12</sup> Again for illustration a field called ContextKey is included in this table, which is produced in a similar fashion to the Categorisation Key, but omitting the *Metric* dimension. For the avoidance of doubt, it is not expected that the values of either the ContextKey or the ContextID field from the database will appear anywhere in the XBRL instance files, it is instead the unique set of dimension member pairs that would be matched to a specific ContextOfDataPoints to (along with the metric) identify the datapoint reported.

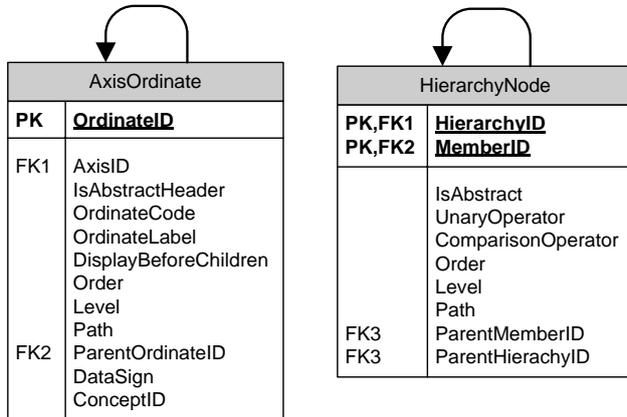
- for "codes" (data type "e") – the values reported for cells using this metric are required to be one of the members of a specific domain (indicated by the DomainID field), and may be further restricted to one of the members of a particular hierarchy<sup>13</sup>, indicated by the SubdomainID field.

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<sup>13</sup> which may be included purely for the purpose of enumerating this set of values

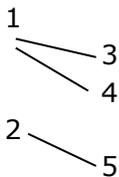
### Appendix 3 - Tree structures in the Model

Two tables in the DPM database represent “tree” / “parent-child” structures (i.e. where an entry can have multiple child entries “below” it, each of which can also have children etc.) – Hierarchy Node and AxisOrdinate.



In each case the tree structure is represented in the database in two ways, by a link to a “Parent” entry from each child (i.e. as an “adjacency list”), and with a “Path” field giving the full path from a child through its ancestors to the first level (“path enumeration”), both of which use the Order field to indicate the overall order of the nodes within the tree (and so also the order within each sibling group).

i.e. an arrangement such as



Would be represented as

Node	Parent	Path	Order	Level
1		1.	1	1
3	1	1.3.	2	2
4	1	1.4.	3	2
2		2.	4	1
5	2	2.5.	5	2

These representations are redundant, each conveys the same information. Both are included merely for convenience, as each representation is more convenient to work with when using certain tools/technologies, or for different purposes.



## Appendix 5 – Table and Field Descriptions

### Axis

Represents either a row, column or sheet of a particular table.

Field Name	Type	Size	Description
AxisID	Long	4	Artificial ID
TableVID	Long	4	Table to which this axis belongs
AxisOrientation	Text	1	Either X,Y or Z for row, column or sheet respectively
AxisLabel	Memo		Descriptive label (English). Most relevant for Z axes, where it can be used e.g. to label a text or dropdown box for the user to enter/choose the z-axis value
AxisOrder	Integer	2	For multiple Z-axes, indicates in what order the axes should be shown (i.e. in what order any text or dropdown boxes used to represent the axes should be displayed)
IsOpenAxis	Boolean	1	An "open" (vs. "closed") axis allows a variable number of entries, either chosen from a list of options or of a type of value. Used e.g. for vertical list tables, where a "line number" is used, and for "sheet per country/currency/sector" type tables.

### AxisOrdinate

Represents a specific position on a "closed" axis (or a generic placeholder for an "open" one). Tree structure of ordinates represent indenting / nesting of rows or columns (used for e.g. "of which" type breakdowns)

Field Name	Type	Size	Description
OrdinateID	Long	4	Artificial ID
AxisID	Long	4	Axis to which this ordinate belongs
IsAbstractHeader	Boolean	1	If true, this ordinate does not represent any "reportable data", e.g. it may either be displayed as a completely "grey row", or as just a heading with no column for values etc.
MetricID	Long	4	Fundamental nature of the values reported against this ordinate (i.e. in this column, row or sheet), if applicable.
OrdinateCode	Text	4	Short code
OrdinateLabel	Memo		Descriptive label (English)
Order	Long	4	Position of this ordinate within its set of siblings, if any (Tree structure information)
Level	Long	4	Level of this ordinate, lower level numbered ordinates "contain" higher numbered ones, i.e. lower levels are nearer the root (Tree structure information)
Path	Text	255	Path from the root of the axis to this ordinate (Tree structure information)
ParentOrdinateID	Long	4	Parent of this ordinate, if any - i.e. the level immediately above (Tree structure information)
DisplayBeforeChildren	Boolean	1	Hint for display. If yes/true then this ordinate is intended to be displayed above or to the left of any child ordinates, if false it should be shown

			below or to the right of them.
DataSign	Text	255	Indication of the sign required for reported numeric values
ConceptID	Long	4	Reference to concept (change, owner and translation) information - to be implemented

### **BalanceType**

Field Name	Type	Size	Description
BalanceTypeID	Long	4	Artificial ID
BalanceTypeCode	Text	1	Short Code
BalanceTypeLabel	Text	255	Descriptive label (English)

### **CellPosition**

Links a cell in a table to its position on the axes of that table

Field Name	Type	Size	Description
CellID	Long	4	Cell that is described
OrdinateID	Long	4	Position on an axis of a table

### **ConceptualModule**

Distinct reporting unit concept. Differs from Module in that a single ConceptualModule (business report) may have several variations (Modules) where the report may be made on a differing basis which affects the potential content (for example consolidated or individual, or IFRS or GAAP).

Field Name	Type	Size
ConceptualModuleID	Long	4
ConceptuaModuleCode	Text	255
ConceptuaModuleLabel	Text	50

### **ContextDefinition**

A specific dimension member pair used to categorise one or more data point versions.

Field Name	Type	Size	Description
ContextID	Long	4	Context (of data point version(s)) to which this categorisation applies
DimensionID	Long	4	Dimension being considered
MemberID	Long	4	Categorisation in that dimension.

### **ContextOfDataPoints**

A specific combination of dimension member pairs (excluding the metric dimension) used to categorise one or more data point versions. Intended to illustrate the intended approach to mapping to XBRL.

Field Name	Type	Size	Description
ContextID	Long	4	Artificial ID
ContextKey	Text	255	Concatenation of the [DimensionCode MemberID] pairs, excluding the metric dimension, that categorise one or more data point versions. (For illustration only)

XbrlContextKey	Memo		Concatenation of the codes used in XBRL documents for the (non-default) [DimensionCode MemberID] pairs, excluding the metric, that categorise one or more data point versions. (For illustration only)
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### **DataPoint**

A unique item of information. Indicates conceptual identity independent of the specific categorisation in any particular taxonomy.

Field Name	Type	Size	Description
DataPointID	Long	4	Artificial ID
PeriodOffsetID	Long	4	The relationship between this and the underlying data point. (Some data points are intimately related to others, representing the same information at a different time, i.e. "balance now" and "balance last year").
RelatedDataPointID	Long	4	The underlying data point. (Some data points are intimately related to others, representing the same information at a different time, i.e. "balance now" and "balance last year").

### **DataPointVersion**

The categorisation of a DataPoint which is/was valid during a specific period of time.

Field Name	Type	Size	Description
DataPointVID	Long	4	Artificial ID
DataPointID	Long	4	Data point for which this is a specific version of the categorisation
MetricID	Long	4	Fundamental meaning, data and period type of this data point
ContextID	Long	4	Remaining dimensional categorisation
FromDate	Date	8	Date from which this data point version is/was valid
ToDate	Date	8	Date from which this data point version is/was valid
CategorisationKey	Text	255	Concatenation of the [DimensionCode MemberID] pairs that categorise this data point version (including metric). (For illustration only)
CategorisationKeyWithoutDefaults	Text	255	Concatenation of the (non-default) [DimensionCode MemberID] pairs that categorise this data point version (including metric). (For illustration only)

### **DataType**

Field Name	Type	Size	Description
DataTypeID	Long	4	Artificial ID
DataTypeCode	Text	1	Short code (one character)
DataTypeLabel	Text	50	Descriptive label (English)

## **Dimension**

Category/aspect used to describe and differentiate data points, each relates to one specific feature. Allowed values are taken from a domain. If these are explicitly listed they are called members.

<b>Field Name</b>	<b>Type</b>	<b>Size</b>	<b>Description</b>
DimensionID	Long	4	Artificial ID
DomainID	Long	4	Domain from which the allowable values for this dimension are taken
DimensionCode	Text	3	Short code
DimensionLabel	Text	255	Descriptive label (English)
DimensionDescription	Memo	0	Longer description (English)
IsTyped	Boolean	1	"Typed" dimensions allow any value of a particular form (i.e. any string of certain length or pattern, any number, a date etc.), "explicit" dimensions only allow a choice from a given list of members.
DimensionXbrlCode	Text	255	Code used in XBRL documents
ConceptID	Long	4	Reference to concept (change, owner and translation) information - to be implemented

## **DimensionalCoordinate**

A specific dimension and member pair.

<b>Field Name</b>	<b>Type</b>	<b>Size</b>
DimensionID	Long	4
MemberID	Long	4

## **Domain**

Groups values of a particular kind/addressing a particular concept. May have an explicit list of allowable values (members), or else specify values of a particular type or pattern (a "typed" domain). Provides the allowable values for a dimension.

<b>Field Name</b>	<b>Type</b>	<b>Size</b>	<b>Description</b>
DomainID	Long	4	Artificial ID
DomainCode	Text	3	Short code
DomainLabel	Text	255	Descriptive label (English)
IsTypedDomain	Boolean	1	"Typed" domains allow any value of a particular form (i.e. any string of certain length or pattern, any number, a date etc.), "explicit" dimensions only allow a choice from a given list of members.
IsExternalRefData	Boolean	1	Indicates if the domain value list is obtained primarily from an externally published authoritative list.
ReferenceDataSource	Text	255	Indicates where the value list is obtained from (if not defined by the domain owner).
DataTypeID	Long	4	Indicates the allowed type of values (for Typed domains).

DomainDescription	Memo	0	Longer description (English)
DomainXbrlCode	Text	255	Code used in XBRL documents
ConceptID	Long	4	Reference to concept (change, owner and translation) information - to be implemented

### **FlowType**

Field Name	Type	Size
FlowTypeID	Long	4
FlowTypeCode	Text	1
FlowTypeLabel	Text	50

### **Hierarchy**

Hierarchies specify how members relate to each other, and can also define the aggregations from lower to upper levels in the hierarchy.

Field Name	Type	Size	Description
HierarchyID	Long	4	Artificial ID
HierarchyLabel	Text	255	Descriptive label (English)
HierarchyCode	Text	50	Short code
DomainID	Long	4	Domain this hierarchy relates to
HierarchyDescription	Memo	0	Longer description (English)
ConceptID	Long	4	Reference to concept (change, owner and translation) information - to be implemented

### **HierarchyNode**

Represents a node in a hierarchy of members, specifying how members relate to each other, and can also define the aggregations from lower to upper levels in the hierarchy.

Field Name	Type	Size	Description
HierarchyID	Long	4	Hierarchy to which this node belongs
MemberID	Long	4	Member this node represents
IsAbstract	Boolean	1	
ComparisonOperator	Text	2	Indicates the relationship between this node and the aggregation of its children
UnaryOperator	Text	1	Indicates the contribution of this node to the aggregation of its siblings
Order	Long	4	Position of this node within its set of siblings, if any (Tree structure information)
Level	Long	4	Level of this node, lower level numbered nodes contain higher numbered ones, i.e. lower levels are nearer the root (Tree structure information)
Path	Text	255	Path from the root of the hierarchy to this node, only MemberIDs are listed (Tree structure information)
ParentHierarchyID	Long	4	Must always be the same as HierarchyID (included purely due to limitations of MS Access).
ParentMemberID	Long	4	Indicates the parent of this node, if any - i.e. the level immediately above (Tree structure information)

### **Member**

An explicit possible value within a domain.

Field Name	Type	Size	Description
MemberID	Long	4	Artificial ID
DomainID	Long	4	Domain to which this member belongs
MemberCode	Text	50	Short code
MemberLabel	Text	255	Descriptive label (English)
MemberXbrlCode	Text	255	Code used in XBRL documents
IsDefaultMember	Boolean	1	
ConceptID	Long	4	Reference to concept (change, owner and translation) information - to be implemented

### **Metric**

The fundamental conceptual meaning of a piece of information.

Field Name	Type	Size	Description
MetricID	Long	4	Artificial ID - Matches a MemberID from which descriptive labels may be obtained
DataTypeID	Long	4	The type of data present
FlowTypeID	Long	4	The time dynamics characteristics of the information, is it a value at a specific point in time (level/stock) or a change in value (a flow)
SubdomainID	Long	4	

### **Module**

Unit of reporting, represents the possible contents of a particular XBRL instance. Associated with a specific SchemaRef value in an XBRL instance. Perhaps better thought of as "Report".

Field Name	Type	Size
ModuleID	Long	4
TaxonomyID	Long	4
ModuleCode	Text	255
ModuleLabel	Text	50
XbrlSchemaRef	Memo	
ConceptualModuleID	Long	4
ConceptID	Long	4

### **ModuleTableOrGroup**

Field Name	Type	Size
ModuleID	Long	4
TableVID	Long	4
TableGroupId	Long	4
Order	Long	4

### **ModuleTableVersion**

Field Name	Type	Size
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ModuleID	Long	4
TableVID	Long	4

### **OpenAxisValueRestriction**

For table with "open axes" (i.e. those allowing a choice of a variable number of sheets/rows/columns each having one value from a particular domain), the values allowed to be reported may not be all the values from a domain, but only a subset. This table indicates the restriction applied to a particular open axis.

Field Name	Type	Size	Description
AxisID	Long	4	Axis to which this restriction applies
RestrictionID	Long	4	Link to the details of the restriction to the possible values from the relevant dimension

### **OpenMemberRestriction**

For table with "open axes" (i.e. those allowing a choice of a variable number of sheets/rows/columns each having one value from a particular domain), the values allowed to be reported may not be all the values from a domain, but only a subset. This table indicates the allowed subset by referencing a member in a hierarchy, all members below the referenced member are acceptable values, if MemberIncluded is true, the referenced member is also a valid value, otherwise it is not.

Field Name	Type	Size	Description
RestrictionID	Long	4	Artificial ID
HierarchyID	Long	4	Values for the open axis are restricted to those in the given hierarchy
MemberID	Long	4	Values for the open axis are restricted to the descendants of this member in the given hierarchy
MemberIncluded	Boolean	1	If yes, the linked member is a valid value, if not, only it's descendants are
AllowDefaultMember	Boolean	1	If yes, the default member for the domain is a valid value (which n.b. would result in no value for this dimension being present in an XBRL context)

### **OrdinateCategorisation**

A pair of dimension and member describing one aspect of the categorisation of a particular position along an axis of a table

Field Name	Type	Size	Description
OrdinateID	Long	4	Artificial ID
DimensionID	Long	4	The dimension considered
MemberID	Long	4	The relevant value of that dimension

### **ReferencePeriodOffset**

Ways in which a data point may be related to another data point such that for e.g. time series analysis purposes they may need to be considered as the same data series.

Field Name	Type	Size	Description
PeriodOffsetID	Long	4	Artificial ID
PeriodOffsetLabel	Text	255	Descriptive label (English)
PeriodType	Text	255	Nature of the time period linking the data points
OffsetValue	Integer	2	Degree of offset from the data point considered the "latest" / "current period" / "default" etc.

### **ReportingFramework**

Overall reporting framework - high level, stable concept

Field Name	Type	Size	Description
FrameworkID	Long	4	Artificial ID
FrameworkCode	Text	255	Short code
FrameworkLabel	Text	255	Descriptive label (English)
ConceptID	Long	4	Reference to concept (change, owner and translation) information - to be implemented

### **Table**

Most of the times a table will be the same as a business template, except when, for modelling reasons, the templates had to be normalised and split into two or more tables

Field Name	Type	Size	Description
TableID	Long	4	Artificial ID
FrameworkID	Long	4	Reporting framework this table belongs to
OriginalTableCode	Text	255	Short code
OriginalTableLabel	Text	255	Descriptive label (English)
Template	Text	255	Name/Code of template of (part of) which this table is a representation.
ConceptID	Long	4	Reference to concept (change, owner and translation) information - to be implemented

### **TableCell**

Represents an individual intersection of row, column (and sheet) for a particular table.

Field Name	Type	Size	Description
CellID	Long	4	Artificial ID
TableVID	Long	4	(The version of a) table this cell is part of
IsShaded	Boolean	1	Is no data expected to be entered into this cell? - either because it is not required, or because this cell forms part of a heading, or the intersection of its row and column (and sheet) has no logical meaning.
IsRowKey	Boolean	1	Does this cell represent the artificial code/ID used to identify a row of data (in an open table/list)?
DataPointID	Long	4	Business information contained in this cell

### **TableGroup**

Grouping (for information purposes only) of templates within a taxonomy

Field Name	Type	Size	Description
TableGroupID	Long	4	Artificial ID
TaxonomyID	Long	4	Taxonomy to which this table group belongs
TableGroupCode	Text	255	Short code
TableGroupLabel	Text	255	Descriptive label (English)
Order	Long	4	Position of this table group within its tree (Tree structure information)
ConceptID	Long	4	Reference to concept (change, owner and translation) information - to be implemented

### **TableGroupTemplates**

Linking table between TableGroup and Template

Field Name	Type	Size	Description
TableGroupID	Long	4	Table group in which...
TemplateID	Long	4	...this template is included

### **TableVersion**

The specific description of a particular table from a reporting framework, within a taxonomy, valid during a particular time period. Several TableVersions may represent the evolution of a particular Table over time.

Field Name	Type	Size	Description
TableVID	Long	4	Artificial ID
TableID	Long	4	Table that this is a particular version of
TableVersionCode	Text	255	Short code
TableVersionLabel	Memo		Descriptive Label (English)
XbrlFilingIndicatorCode	Text	255	Code which should be included in an XBRL instance filing indicator element to indicate that this table (and all other table with the same indicator code) is intended to be included in the reported instance.
FromDate	Date	8	Date from which this version of this table is/was valid
ToDate	Date	8	Date until which this version of this table is/was valid
ConceptID	Long	4	Reference to concept (change, owner and translation) information - to be implemented

### **Taxonomy**

A specific description of the classification of the tables and data points of a reporting framework, at a particular point/period in time

Field Name	Type	Size	Description
TaxonomyID	Long	4	Artificial ID
FrameworkID	Long	4	Reporting framework this taxonomy describes
TaxonomyCode	Text	255	Short code
TaxonomyLabel	Text	50	Descriptive label (English)
ConceptID	Long	4	Reference to concept (change, owner and

			translation) information - to be implemented
FromDate	Date	8	Date from which this taxonomy is/was valid
ToDate	Date	8	Date until which this taxonomy is/was valid

### **TaxonomyTableVersion**

Linking table, indicating which TableVersions are used in which Taxonomy. Also indicates the Template and TableGroup in which the TableVersions are included.

<b>Field Name</b>	<b>Type</b>	<b>Size</b>	<b>Description</b>
TaxonomyID	Long	4	ID of Taxonomy containing TableVersion
TableVID	Long	4	ID of TableVersion contained in Taxonomy
TemplateID	Long	4	ID of Template of which TableVersion makes up part
TableGroupID	Long	4	ID of TableGroup containing Template in Taxonomy

### **Template**

A reporting template

<b>Field Name</b>	<b>Type</b>	<b>Size</b>	<b>Description</b>
TemplateID	Long	4	Artificial ID
FrameworkID	Long	4	Reporting framework this template belongs to
TemplateCode	Text	255	Short code
TemplateLabel	Text	255	Descriptive label (English)
Template	Text	255	Name/Code of template of (part of) which this table is a representation.
ConceptID	Long	4	Reference to concept (change, owner and translation) information - to be implemented