25 May 2012

Data point model related to Implementing Technical Standards on supervisory reporting

Legal background and rationale

The EBA published on 20 December 2011 a consultation paper on draft Implementing Technical Standards (ITS) on supervisory reporting requirements for institutions (CP50) and on 13 February 2012 a consultation paper on a draft Implementing Technical Standard (ITS) on reporting of large exposures (CP51).

These draft ITS will be part of the single rulebook enhancing regulatory harmonisation in Europe with the particular aim of specifying uniform data definitions for prudential reporting as well as IT solutions to be applied by credit institutions and investment firms in Europe. It aims at implementing uniform reporting requirements which are necessary to ensure fair conditions of competition between comparable groups of credit institutions and investment firms.

The objectives of developing uniform reporting requirements are to achieve higher quality and better comparability of data as well as to reduce administrative costs faced by institutions in dealing with diverging reporting frameworks in several jurisdictions.

The documentation included in CP 50 and CP 51 provide clear references to underlying legal texts and additional data definitions but are no guarantor for achieving the above. Higher data quality and a more effective data production process will only materialise if the implementation of the reporting requirements is based on uniform specifications on a granular level of detail.

This can be achieved by describing the business concepts and its relations in the necessary detail, and by defining all the relevant technical specifications necessary for developing IT reporting formats and common dictionaries of terms that can be used in the institutions' databases.

Therefore, the draft ITS (see CP 50) and in particular Article 12 thereof require that institutions shall comply with the specifications included in the data point model (DPM).

Benefits and main features of the DPM

The main objectives of developing a Data Point Model (DPM) are the following:

- Provide a detailed standard technical description of the data in order to ensure a common interpretation, which in turn will help reporting entities when implementing new reporting requirements.

- By focussing on the logical structure of the information, and not on the structure and context of specific templates, the data points definitions become independent of any particular views of data, providing the base ground for analytical exploration, and enabling future redesign of templates in a more homogenous and consistent manner.

- Applying a logical and formal approach in describing data using commonly known concepts eases communication between business experts and IT experts.

- IT data exchange formats, and in particular XBRL taxonomies can be produced based on the DPM without depending on the knowledge and availability of business experts.

Content of the DPM

The DPM covers all data items included in the draft ITS put forward in CP 50 and CP 51. In other words, it is a structured representation of the data included in the draft ITS, identifying all the business concepts and its relations, as well as validation rules. It contains all the relevant technical specifications necessary for developing an IT reporting format.

Please note that EBA has developed these draft ITS based on the proposed legislative texts for the CRR and data items included in CP 50 and CP 51. When finalising the draft ITS EBA will adapt the DPM accordingly to reflect changes in the data items. Potential changes in the CRR text as a result of ongoing negotiations among EU institutions, as well as feedback received via CP 50 and CP 51 consultations will be reflected in the final draft ITS.

DPM methodology

Data Points are the unique concepts associated to the cells of the templates of the reporting frameworks, and they must unequivocally specify the data to be reported.

Data points provide the fixed context for the actual reported values, the Data Facts, which are then further identified by the variable context of the report instance (e.g. Entity, Period, …).

The approach chosen by the EBA was to define the DPM as a fully dimensional model. Thus the DPM describes each Data Point of the reporting frameworks, by means of a specific and unique combination of Members of different Dimensions. Each dimension is a category of information considered necessary to classify the data facts, and the members are the possible instances of the dimensions ([Prudential Portfolio].[Trading book] and [Type of Risk].[Credit risk] are examples of pairs [Dimension].[Member] used in the model).

The model can be seen as an n-dimensional space where dimensions are the axes, and members are the axes coordinates; each data point has a precise position in this space, defined by specific coordinates (a unique combination of pairs [*dimension].[member]*).

Other properties of data, like the data type (e.g. *monetary, percentage, string,…*), the period type (stock/flow), or the debit/credit nature, are also explicitly assigned to the data points.

Each Dimension takes its members from on specific Domain. Domains can be related to external reference data (e.g. Currencies, Securities, Legal Entities…), or they derive from categories of concepts identified in the reporting framework (e.g. Type of Risk, Portfolio, Impairment Status, …). Two or more dimensions can take members from the same domain, but in this case they play different roles in the model: *Country where the requirement is applicable, Country of the market, Country where the exposure is generated, Location of the activities, Residence of counterparty,* are all dimensions related to the same "Geographical Area" domain.

Domain members can also be organised into Hierarchies, which are useful for understanding the breakdowns of data, and to define validations of summary data, across the parent-child structure of members.

The DPM also includes metadata describing the reporting templates, and the relation between template cells and data points, making it possible to know for each table cell its dimensional categorisation, and to know for each data point its respective coordinates within the CP 50 and CP51 templates.

All the DPM metadata is stored in a repository available in MS Access format, which is a database with a generic metamodel structure, designed to store DPMs for the current and any future reporting frameworks. This repository is being used as the base for the automatic generation of the XBRL taxonomies, and can be explored in a variety of ways to understand the DPM concepts and relations, or as the basis for other data transformation processes.

A number of predefined queries and reports are defined in the database, some of which are also being published as DPM documentation, providing different views of the DPM metadata in a format accessible to the non technical user.

Timing and next steps

Based on the final CRD IV provisions and the related data templates and instructions of the ITS on supervisory reporting, a final DPM will be produced.

The final ITS documentation (including the DPM) is planned to be published in July 2012. Please note that the publication depends on the prior finalization of CRD IV/CRR which provides the legal basis and mandate for EBA to develop ITS on supervisory reporting.

Invitation to provide comments

EBA invites comments on the attached documentation of the data point model, and in particular on what regards the semantic content of the DPM, i.e. the proposed categorisation of the data points/template cells, which should adequately and unequivocally reflect the meaning of the business concepts found on the underlying regulations and templates.

Comments regarding the timing of implementing ITS requirements, scope of application, extent of information and other matters put forward in consultations CP 50 and CP 51 will not be processed, as these have already been subject to separate public consultations.

Also comments on the chosen methodology and structure of the DPM will not be processed, as the DPM has not the formal status of a standard (though clarifications on the interpretation of the model may be provided).

Comments are most helpful if they:

- indicate the specific issue that might present a problem;
- contain a clear rationale;
- provide evidence to support the views expressed/ rationale proposed; and
- describe any alternative choices EBA should consider.

Please send your comments to the EBA by e-mail to CP50@eba.europa.eu by 11.06.2012, indicating the reference 'DPM' on the subject field. Please note that comments submitted after the deadline, or sent to another e-mail address will not be processed.

Accompanying documents

- Database (MS Access file) and database description (MS Work file)

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Following predefined queries and reports are also published as DPM documentation, providing different views of the DPM metadata in a format accessible to the non technical user:

- List of Domains and Dimensions (Adobe PDF file)
- List of Members per Domains (Adobe PDF file)
- List of Members per Dimensions (Adobe PDF file)

The following documents show how every individual data point is described by using unique combinations of Members of different Dimensions

- Matrix Schema (MS Excel file)
- Data Point Categorisation (Adobe PDF file)

The following documents show the link between the individual data point and the relevant cell in the templates (as published in CP 50 and CP 51)

- Templates and Data Point Codes (MS Excel file)
- List of Data Points to Table Cells (Adobe PDF file)
- List of Table Cells to Data Points (Adobe PDF file)
- Table Statistics (Adobe DPF file)