Explanation for EIOPA Solvency II Annotated Templates

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About this document

In order to contribute to the development of Solvency II, EIOPA has provided various inputs to the policy makers, including the reporting requirements, and among them:

- EIOPA (and CEIOPS) Final Level II Advice documents[1],
- EIOPA Quantitative Reporting Templates and other consultation material as published with the EIOPA July 2012 Final Report on Public Consultations No. 11/009 and 11/011 on the Proposal for the Reporting and Disclosure Requirements[2].

This document presents the considerations related to annotating Solvency II reporting templates (RT). In particular, it presents (i) the general relation of Annotated templates to Reporting templates, (ii) the organization of Annotated templates, and (iii) basic information about annotation based on Data Point Modelling (DPM).

Although the current process is not a formal public consultation, interested parties are encouraged to provide their feedback to xbrl@eiopa.europa.eu, especially on topics currently considered open for data modelling and templates annotating. For example, DPM hierarchies review, correctness of application of DPM description to data cells or organization of annotated templates, etc. However, it is not expected to receive feedback on the template content (from the business perspective) but only on data description/annotation.

Note that the principles, rules and design approaches described in this document and applied in the DPM and annotating of templates are still under consideration and subject to further analysis and change. They should therefore not be treated as the final decisions for products that will be used in production.

This document falls in the category of early information sharing, containing non-binding information, and is subject to substantial further changes

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[1] https://eiopa.europa.eu/publications/sii-final-l2-advice/index.html
[2] https://eiopa.europa.eu/?id=1962 including errata document.

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I Introduction

In July 2012 EIOPA published the Final Report that was the result of Consultation Paper 11/009 and 11/011 – "Draft proposal on Quantitative Reporting Templates and Draft proposal for Guidelines on Narrative Public Disclosure & Supervisory Reporting, Predefined Events and Processes for Reporting & Disclosure"[3]. Reporting templates (RT) and Business Logs files that are part of these Consultation Papers were used as the input for development of the Data Point Model[4] and Annotated templates. This document has to be read in connection with other published information related to the EU wide reporting formats[5] and the Solvency II XBRL Taxonomy. More information can be found in point VI: Relation to the Solvency II Taxonomy.

II Naming convention for annotated normalized template worksheets

Solvency II reporting templates (framework) were originally divided into six groups (sub-frameworks):

- Annual disclosure group (ADG),
- Annual disclosure solo (ADS),
- Annual reporting group (ARG),
- Annual reporting solo (ARS),
- Quarterly reporting group (QRG),
- Quarterly reporting solo (QRS).

Each of these sub-frameworks until now was defined in a separate MS Excel file. For DPM development and annotation of templates, all sub-frameworks were merged into a single file. To identify which sub-framework each template comes from, the worksheet titles in the merged workbook consist of the name of a template plus the name(s) of the sub-framework(s) where it was defined. For example, the template *Re-J2_basic* is included in annual reporting solo (ARS) and quarterly reporting solo (QRS) without significant changes in content, therefore it is annotated in the worksheet named *Re-J2_basic(QRS,ARS)* as presented in Figure 1.

Figure 1. Naming convention for worksheets identifying names of templates and sub-frameworks

[5] https://eiopa.europa.eu/publications/eu-wide-reporting-formats/index.html

III Annotation

All templates are annotated using business properties defined in the DPM that is a common dictionary. To understand the content of a data cell it is necessary to analyse and combine all annotations related to it (i.e. all business properties surrounding a data cell).

An annotation of a data cell must always enclose one and only one "Metric"[6] that is the source of information about the data type of the business fact to be reported (for example: "Metric: Monetary" represents a numeric item referencing to a currency as a unit of measure).

Apart from identification of a metric, annotation of a data call can also contain:

- information about pairs of dimension-members. In such case the annotation follows the pattern: "XX:YY/Zzzz", where XX is a code of a domain, YY is a code of an explicit dimension and Zzzz is a label of a domain member[7],
- information about sets of pairs of dimension-members. In such case the annotation follows the pattern "XX:YY/All members (Zzzz)", where XX is a code of a domain, YY is a code of an explicit dimension and Zzzz (optional)[8] is a label of a domain member. If label Zzzz is indicated then it should be understood as a top level domain member opening the list of domain members potentially to be used. To make it always possible to identify to which subdomain the annotation refers to information is added in the DPM file in column "Comment". This construct, based on an explicit dimension, will be referenced in the document as "dropdown list",
- information about a typed dimension, for example: "Aaaa (typed dimension)", where Aaaa is a name of a typed dimension.

[6] If there is no dedicated Metric for template as it gathers just members from different dimensions (explicit and typed) then an artificial Metric is used: Boolean confirming the relation between those members.

[7] It is prohibited that the same data cell is described more than once by the same dimension. For details see the PoC documentation.

[8] When there is no domain member identified it means that all domain members from certain subdomain could appear.

III.1 Annotation of open templates

Open templates (that could theoretically have an unlimited number of columns or rows) are organized in such a manner that data cells are marked with light blue colour and annotations identifying the differences between them are located straight below them. The colour and order of annotations are irrelevant.

Typed dimensions, which allow for an unlimited number of rows, are identified first on the left hand side in an annotated template (in the same MS Excel row as data cells), followed by the dropdown lists (sets of dimension-members pairs).

It is possible to have one or more "Z Axis" in case of open tables. The Z Axis is located on the left hand side below the template in a grey area as presented in Figure 2. They are identified by the header "Z Axis". This information is common for the entire table (all data cells from the table) that it is dedicated to. It could be (i) pairs of dimension-members, (ii) sets of dimension-members pairs (dropdown list) or (iii) typed dimensions.

Figure 2. Example of annotation of open table

III.2 Annotation of closed templates

Closed templates are all the templates which have a limited maximum number of columns and rows (i.e. have predefined headers of rows and columns). Even if the number of columns or rows in a table is very high (according to the high number of countries or currencies to be reported) they are not open as those numbers are limited.

There are three possible locations of annotations for closed tables:

- to the right of the data cell that describes the information unique for entire rows (indicates differences between rows),
- straight below the data cell that describes the information unique for the entire column (indicates differences between columns),
- on the left hand side below the template in a grey area. This information is identified by the header "Z Axis". This information is common for the entire table (all data cells from the table) that it is dedicated to. It could be (i) pairs dimension-members, (ii) sets of dimension-members pairs (dropdown list) or (iii) typed dimensions.

The order and colour of annotations in locations mentioned above are irrelevant.

An example of annotation of a closed table is presented in Figure 3.

	Net solvency capital requirement (including the loss-absorbing capacity of technical provisions)	Gross solvency capital requirement (excluding the loss-absorbing capacity of technical			
Market risk	A1	B1	RT:RT/Market risk		AP:II/Standard formula
Counterparty default risk	A2	B2	RT:RT/Counterparty default risk		AP:II/Standard formula
Life underwriting risk	A3	B3	RT:RT/Life underwriting risk		AP:II/Standard formula
Health underwriting risk	A4	B4	RT:RT/Health underwriting risk		AP:II/Standard formula
Non-life underwriting risk	B5	B5	RT:RT/Non-life underwriting risk		AP:II/Standard formula
Diversification	A6	B6	RT:RT/Insurance risk	RT:DV/Diversification effect	AP:II/Standard formula
Intangible asset risk	B7	B7	RT:RT/Intangible asset risk		AP:II/Standard formula
Remaining part of the Solvency Capital Requirement calculated using partial internal model	A8	B8	RT:RT/Risks other than operational risk [standard approach]		AP:II/Partial internal model
Diversification (between Standard Formula and Partial Internal Model components)	A9	B9	RT:RT/Risks other than operational risk [standard approach]	RT:DV/Diversification effect	AP:II/Standard formula or partial internal model
Basic Solvency Capital Requirement	A10	B10	RT:RT/Risks other than operational risk [standard approach]		AP:II/Standard formula or partial internal model
	BC:BC/Solvency capital requirement [SCR]	BC:BC/Solvency capital requirement [SCR]			
	VM:EA/Including the loss-absorbing capacity of technical provisions	VM:EA/Excluding the loss-absorbing capacity of technical provisions		**Legend:**	
Z axis:				Data cell	
CS:CS/Accounting consolidation-based method [method 1] and combination of methods 1 and 2				Metric	
Metric: Monetary				Dropdown list (based on explicit dimension)	
AM:VG/Solvency II				Typed dimension	
SE:SO/Insurance/reinsurance sector				Explicit dimension	

Figure 3. Example of annotation of closed table.

IV Mechanisms for multiple occurrences of templates

Some tables will be reported under many reporting scenarios with limited changes in the content of tables, but leaving the layout unchanged (or almost unchanged). For example the limited differences could be between (i) solo and group reporting or (ii) reports for the entire entity, each ring fenced fund and the remaining part.

To address those cases the mechanism of "Z Axis" was used because the number of "Z Axes" could be higher than one or include dropdown lists or typed dimensions. If among coordinates on "Z Axes" there are no typed dimensions nor dropdown lists then the number of occurrences of such a template is equal to the number of "Z Axes" (grey areas). If there is at least one typed dimension in any occurrence of such a table (in any grey area) then the number of such templates is theoretically unlimited (for example one table per each ring fenced fund if "Number of fund (typed dimension)" is among those "Z Axis" coordinates). If there are dropdown lists in any of the "Z Axes" then the number of such templates could be equal to the number of combinations of domain-members pairs from sets identified in those dropdown lists. For example the table shown in Figure 4 will occur (i) once for solo report and (ii) as many times for group report as many entities are under consolidation scope (entity would be identified using typed dimension; method of consolidation would be just one, identified based on dropdown list).

	ID Code	ID Code type	Collateral type	Type of structured product	Capital protection	Underlying security / index / portfolio	Callable or Putable	Synthetic structured product (Y/N)	Prepayment structured product (Y/N)	Collateral	Fixed Annual Return	Variable Annual Return
	A1	A1a	A5	A2	A3	A6	A8	A15	A16			
	ID code (typed dimension)	ID code types (typed dimension)	CIC code [third digit] of most significant collateral (typed	LB:UC/All members (Total/NA)	CG:OT/All members	PC:US/All members	PC:LY/All members	MC:AS/All members (Structured notes and collateralised securities)	PC:YP/All members (Total/NA)	A4	A9	A10
Z Axis (Solo):										Metric:Monetary	Metric: Percentage	Metric: String
CS:CS/Solo										BC:BC/Off-balance sheet		
										MC:OB/ Collateral held	PP:PP/Fixed annual return	TS:TS/Variable annual return
Z Axis (Group):												
CS:CS/All members (Group)												
Identification code of entity (typed dimension)												

Figure 4. Mechanisms for multiple occurrences of templates (based on "Z Axis").

If the differences between templates were so material that the mechanisms mentioned above could not be efficiently used then additional worksheets were created (for example: if the number of rows changed, e.g. between *TP-F1* and *TP-F1Q*).

V Differences between annotated templates and reporting templates

Annotated Solvency II templates differ in some cases from the reporting templates. There are two main reasons for these differences:

- minor changes to the scope of reportable information that was usually related to the fact that the reporting templates are still subject to revision resulting from the discussions of OMDII and the implementing measures, as stated in the EIOPA Final Report on Public Consultations No. 11/009 and 11/011, (however for this consultation some changes were introduced when it was considered necessary in order to reflect the foreseen changes to reporting requirements properly),
- normalization of templates without changes to the scope of reportable information (see the PoC documentation for details).

V.1 Additional templates and minor changes to the content

It is not a purpose of this document to explain every single change in the reporting templates and the changes should not be considered as final. Generally, the changes are based on one or more of the following reasons:

(i) the majority results from the DPM analysis, e.g.: identification codes, redesigned or structural changes not affecting reporting content, improvements in the items' description;

(ii) others result from a tentative approach to reflect the additional requirements identified in paragraphs 2.7 to 2.11 of the EIOPA Final Report on Public Consultations No. 11/009 and 11/011, and

(iii) errors identified during the DPM analysis and from queries by the market after the Final Report

Some examples are described below.

There is one new template (compared to the set of reporting templates) in the Solvency II framework. It requests some basic information (*BI*) about a reporting entity (on solo and group level). This template was considered necessary to be included in the scope of the information requirements in order to describe the treatment of the loss absorbing capacity of technical provisions and deferred taxes when filers use the partial and full internal model. Without this template it would not be possible to analyse properly the content of the *SCR-B2B* and *SCR-B2C* templates. Moreover, information provided by the *BI* template resulted in simplification of the *SCR-B2B* and *SCR-B2C* templates (making clear for every reporting entity what is the treatment of those risk components).

As mentioned above, changes of content of reporting templates were introduced only if it was considered necessary to properly reflect in the content of those templates the information needed to conduct the supervisory process efficiently. Examples of cases where it was not required to define an additional template but where it was enough to introduce minor changes to existing templates are:

- template *TP-F3* gathers new information about the relation between Products (ID code of product) and HGRs (ID code of HGR) which was not directly required

initially, according to the reporting templates and business logs. This information was gathered indirectly in a less efficient way, allowing to merge some rows for specific columns in predefined scenarios (see related business log file). Additionally, on the information about relations between Products and HGRs, some existing data was replaced, for example cells A2C (Are HRG common to other products? (Y/N)) or A2B (Number of HRGs in products), as it could be directly extracted from the new tables introduced in the annotated templates,

- introducing identification codes (internal or external) that will make it more efficient to analyse important information (for example about products or intergroup transactions) over time, along with allowing for establishing proper relations between items reported in different templates.

V.2 Changes in templates organization due to normalization process

As the modelling of data according to the DPM methodology is data centric (not form centric) normalization of templates can result in splitting or merging the templates depending on the reporting scenario. Examples of some cases are provided below.

V.2.1 Split of templates

In certain reporting tables there are functional dependencies between some groups of information. For example in template *Assets-D1* there are at least two homogenous data sets:

- information about the instrument (its ID code, Item title, CIC code, Rating, Issuer, etc.) that should be repeated in the reporting template (if it was not normalized),
- information about the instrument mentioned above that could change across a report depending for example on Fund number, Portfolio or Country of custody.

Annotated templates are already normalized (if necessary) identifying those sets of homogeneous information. One or more typed and/or explicit dimensions serve as a key showing how those sets of data are related. In some cases more than two annotated templates could be defined based on one reporting template[9].

V.2.2 Merged templates

Analysis of the functional dependencies between templates during the normalization process allows for merging of non-normalized templates, especially when they share some common information. The example of such a scenario could be the *Asset-D2O* and *Assets-D2T* reporting templates dedicated to derivatives. As part of these two templates (information about derivatives that do not change depending on whether it is an open or closed position[10]) is the same, those parts of two separate templates were merged.

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[9] For example four annotated templates were developed based on a single *TP-F3* reporting template.
[10] For example CIC code, Currency, Unwind trigger of contract, Contract name, etc.

VI Relation to the Solvency II Taxonomy

In September 2012, "Preliminary Information on the EIOPA Solvency II DPM and XBRL Taxonomy Framework Architecture" was published on the EIOPA webpage[11]. The document was partially dedicated to describe the DPM development process and its components (Data Point Model[12] and Annotated templates[13]). As it was a Proof of Concept (PoC) it included only a portion of the Solvency II reporting templates (RT), not all of them.

Nevertheless most of the issues relevant to describe the process of the DPM development, normalization and annotation of templates were addressed in that document and supporting files. For that reason this document describes only those topics which were not addressed in PoC (it is assumed that readers of this document are familiar with the PoC documentation and supporting materials).

The PoC package introduces two interrelated models: "highly" dimensional (HD) and "moderately" dimensional. The development process of the DPM and annotated templates was organized in a manner that the HD model was created first and later reorganized into the MD model. In general this reorganization was conducted by (i) limiting the number of business properties represented by the means of dimensions and (ii) making metrics less generic by including in their definitions certain semantics.

Due to the fact that the HD model is the initial one (MD is derived from it in a later stage) this document is dedicated solely to the HD approach (and so are the DPM and the annotated templates for the entire set of Solvency II information requirements distributed together with this document).

[11] https://eiopa.europa.eu/publications/eu-wide-reporting-formats/index.html
[12] Sol2POC_DPM_20120831.xlsx
[13] Sol2POC_AnnotatedTemplates_20120831.xlsx