# COREP DRAFT DATA POINT MODEL

**V 0.3 2010-07-27**

*This initial (very preliminary draft) is a contribution of Ignacio Boixo and Carlos Rodriguez*

*(Templates prepared: CA, Group Solvency, CR SA Totals and Details)*

**Starting point:**

CP04A2.xlsx

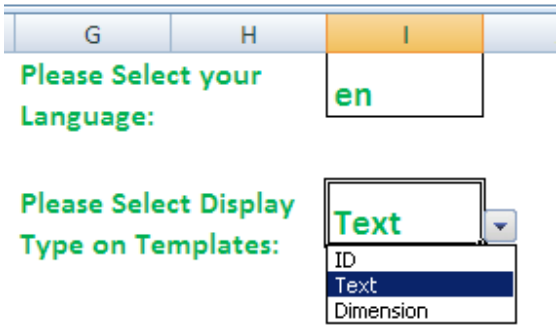
CP04A3.xlsx

DPM.xlsx

Store the files CP04A2.xlsx, CP04A3.xlsx and DPM.xlsx in the same folder and open them CONSECUTIVELY IN THIS ORDER (the three files are linked).

**Check Language and Display type:**

Go to NAVI sheet in DPM.xlsx, cell I1 should be "en" (English) and cell I3 should be "Text". Select such values otherwise.




**View a Template:** Go to 2013 CR SA Total sheet in CP04A3.xlsx

| | CR SA Total | CREDIT AND COUNTERPARTY CREDIT RISK<br>Common to Template= Credit risk (Credit, counterparty credit and dilution risks and fr | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Original exposure pre conversion factors | ~~OF WHICH: ARISING FROM COUNTERPARTY CREDIT RISK~~ | Value adjustments and provisions | Exposure net of value adjustments and provisions | Credit Risk Mitigation Techniques with substitutior | | | |
| | | | | | | Unfunded credit protection. Adjusted value [Ga] | | Funded credit protection | |
| | | | | | | Guarantees | Credit derivatives | Credit Risk Mitigation, Funded | Other funded credit |
| | | 010 | ~~2~~ | 020 | 030=010+020 | 040 | 050 | 060 | 070 |
| 0010 | **Total exposures** | | | | | | | | |
| | **Breakdown of exposures by exposure type** | | | | | | | | |

Figure 1

The presentation is ver, very similar to the original templates published by CEBS at http://www.c-ebs.org/News--Communications/Latest-news/CEBS-consults-on-the-revised-guidelines-on-common-.aspx

The difference is in the texts as "**Total exposures**" or "**Original exposures pre conversion factors**". In the original templates, the text is in the template. In this model, the text is stored in a reference list, including all the texts of all the templates, as a complete reference list. This is the cornerstone of the data Point Model.

**LANGUAGES:**

Providing translations to the Texts, the templates would be presented in different languages. See below an example in English, Norwegian and Spanish::

| | Breakdown of exposures by ris |
|---|---|
| 0070 | **0% risk weight** |
| 0080 | **10% risk weight** |
| 0090 | **20% risk weight** |
| 0100 | **35% risk weight** |
| 0110 | **50% risk weight** |
| 0120 ~~(a)~~ | *50% risk weight of which Past due items* |
| | ~~*Without credit assessment by a nominate ECAI*~~ |
| 0130 ~~(a)~~ | *50% risk weight of which secured by commercial real state* |
| 0140 | **70% risk weight** |
| 0150 | **75% risk weight** |
| 0160 | **100% risk weight** |
| 0170 ~~(a)~~ | *100% risk weight of which Past due items* |
| 0180 ~~(a)~~ | *100% risk weight of which Without credit assessment by a nominate ECAI* |
| 0190 ~~(a)~~ | *100% risk weight of which Secured on (by) real state property* |
| 0200 | **150% risk weight** |
| 0210 ~~(a)~~ | *150% risk weight of which Past due items* |

| | FORDELT PÅ RISIKOVEKT |
|---|---|
| 0070 | **0% risikovekt** |
| 0080 | **10% risikovekt** |
| 0090 | **20% risikovekt** |
| 0100 | **35% risikovekt** |
| 0110 | **50% risikovekt** |
| 0120 ~~(a)~~ | *50% risikovekt hvorav Forfalte elementer* |
| | ~~*Uten kreditt vurdering av en oppnevnt ECAI*~~ |
| 0130 ~~(a)~~ | *50% risikovekt hvorav sikret ved næringseiendom staten* |
| 0140 | **70% risikovekt** |
| 0150 | **75% risikovekt** |
| 0160 | **100% risikovekt** |
| 0170 ~~(a)~~ | *100% risikovekt hvorav Forfalte elementer* |
| 0180 ~~(a)~~ | *100% risikovekt hvorav Uten kreditt vurdering av en oppnevnt ECAI* |
| 0190 ~~(a)~~ | *100% risikovekt hvorav Sikret ved fast statlig eiendom* |
| 0200 | **150% risikovekt** |
| 0210 ~~(a)~~ | *150% risikovekt hvorav Forfalte elementer* |

| | Desglose de exposiciones por |
|---|---|
| 0070 | **Ponderación 0%** |
| 0080 | **Ponderación 10%** |
| 0090 | **Ponderación 20%** |
| 0100 | **Ponderación 35%** |
| 0110 | **Ponderación 50%** |
| 0120 ~~(a)~~ | *Ponderación 50% de lo cual Pagos vencidos* |
| | ~~*Sin calificación crediticia por parte de una ECAI*~~ |
| 0130 ~~(a)~~ | *Ponderación 50% de lo cual Asegurado por inmuebles comerciales* |
| 0140 | **Ponderación 70%** |
| 0150 | **Ponderación 75%** |
| 0160 | **Ponderación100%** |
| 0170 ~~(a)~~ | *Ponderación100% de lo cual Pagos vencidos* |
| 0180 ~~(a)~~ | *Ponderación100% de lo cual Sin calificación crediticia por parte de una ECAI* |
| 0190 ~~(a)~~ | *Ponderación100% de lo cual Asegurado por bienes inmuebles* |
| 0200 | **Ponderación 150%** |
| 0210 ~~(a)~~ | *Ponderación 150% de lo cual Pagos vencidos* |

Figure 2

**CELL IDENTIFICATION**

The rows had been increased from 3 to 4 digits, according to a suggestion in the XBRL Operational network. The columns have always 3 digits.

In such a way, it is very simply distinguish rows (4 digits, or more if needed) from columns (always 3 digits)

Above the CR SA Total template this is also shown the Data Point coordinates that are common to the Table CR SA Total: **Credit risk (Credit, counterparty credit and dilution risks and free delivery)** and **SA exposures classes excluding securitisation positions** and **Banking book** (Figure 3 below)

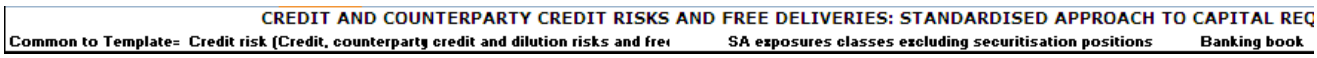



Figure 3

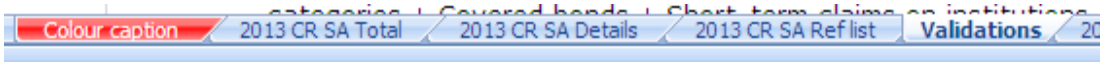
**Therefore, a cell is identified indifferently in two ways:**

1. **Table 2013 CR SA Total, Row 010, Column 0010**

2. **Credit risk (Credit, counterparty credit and dilution risks and free delivery)** and **SA exposures classes excluding securitisation positions** and **Banking book** and **Total exposures and Original exposure.**

**VALIDATIONS**

Go to "Validations" sheet on CP04A3.xlsx




These validations are other way to express the validations with Rows and Columns (from CP04 Annex 1, page 78 http://www.c-ebs.org/documents/Publications/Consultation-papers/2010/CP04rev2/CP04rev2_Annex-1.aspx as example):

**Columns.** **Validation rules applicable for all templates**

*010-130, 180-330* *row 0010 = row 0020+ row 0030+ row 0040+ row 0050+ row 0060*

However, using Data Point resources, the validation would be expressed in "plain English":

*Total exposures = On-balance sheet + Off-balance sheet + Securities financing transactions + Derivates and long settlement transactions + From contractual cross product netting*

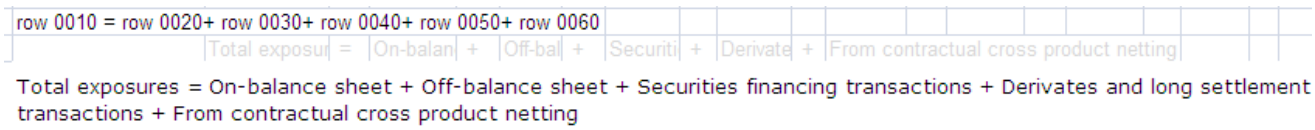



Figure 4

Using English text instead of numbers, the bugs would be easier detected. Example:

According to the Rows/Columns coordinates, the initial result obtained here is as following

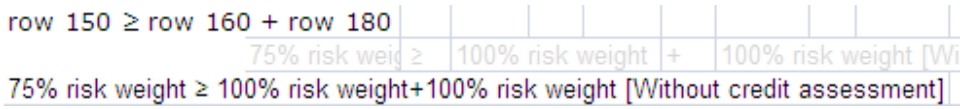
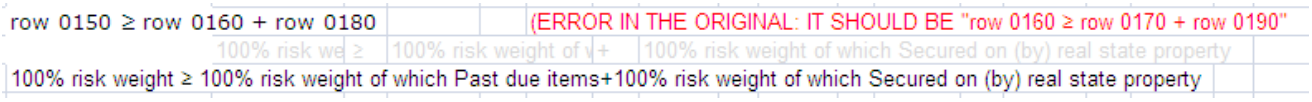



Figure 5

It is a quite unusual validation! Reviewing the 2013 CR SA Total template, the error is clear. The rows possibly were 150, 160 and 180 in a past time, but now the correct rows should actually be 160, 170 and 190.

Using the Data Point approach with corrected coordinates, the validation would be expressed now properly:




Or in Norwegian:

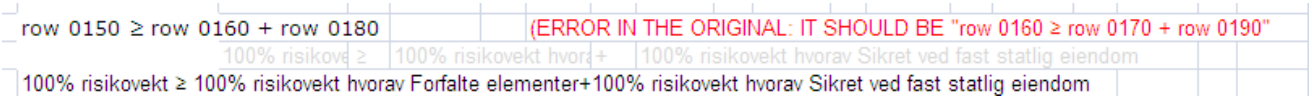
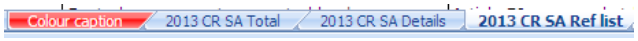



Figure 6

***THE VALIDATIONS WOULD BE EXPRESED IN THE DIFFERENT NATIONAL LANGUAGES, IN A COHERENT AND ERROR-FREE WAY.***

***THE VALIDATIONS WOULD BE INDEPENDENT OF ROWS, COLUMNS, OR EVEN TEMPLATES, WHEN THE SET OF FACTORS APPEARS TOGETHER, THE VALIDATION SHOULD BE FULFILLED.***

**REFERENCE LIST**

Go to 2013 CR SA Ref list in CP04A3.xlsx 


The Label in the Template matches perfectly with the Label in the Data Point model.

CR SA

| ID | Label | Legal References & Comments | Data Point |
|---|---|---|---|
| Columns | | | |
| 010 | Original exposure pre conversion factors | Article 74 paragraph 1 of amended Directive 2006/48/EC. | Original exposure pre conversion factors |
| 020 | (-) Value adjustments and provision associated with the original exposure | | Value adjustments and provisions |
| 030 | Exposure net of value adjustments and provisions | | Exposure net of value adjustments and provisions |
| 040-090 | CREDIT RISK MITIGATION (CRM) TECHNIQUES WITH SUBSTITUTION EFFECTS ON THE EXPOSURE | Credit risk mitigation techniques as defined in article 4 (30) of amended Directive 2006/48/EC that reduce the credit risk of an exposure or exposures via the substitution of exposures as defined | Credit Risk Mitigation Techniques with substitution effects on the exposure |
| 040-050 | Unfunded credit protection: adjusted values (Ga) | Annex VIII part 3 points 87 to 89 of amended Directive 2006/48/EC. | Unfunded credit protection. Adjusted value [Ga] |
| 040 | Guarantees | Unfunded Credit Protection as defined in article 4 (32) of amended Directive 2006/48/EC different from Credit Derivatives | Guarantees |

However, at the end of the list of columns in the Reference List, something should be fixed. The numbers in the reference list mismatch with the template. This typo has also been detected when using Data Point Labels that do not match with the labels in the Reference List. This is the corrected Reference list:

| | | | |
|---|---|---|---|
| 190 | Of which: Arising from Counterparty Credit Risk | For Derivative instruments, repurchase transactions, securities or commodities lending or borrowing transactions, long settlement transactions and margin lending transactions subject to annex III of | Exposures: Transactions subject to (arising from) counterparty credit risk |
| 200-310 ~~300~~ | BREAKDOWN OF EXPOSURE VALUE BY RISK WEIGHTS | | Breakdown of exposures by risk weights |
| 280 ~~270~~ | *Of which: Without credit assessment by a nominated ECAI* | See Article 81 and Annex VI of amended Directive 2006/48/EC. | Without credit assessment by a nominate ECAI |
| 320 ~~310~~ | Risk weighted exposure amount | Article 80 paragraphs 1 to 5 and 6 of amended Directive 2006/48/EC. | Risk weighted exposure amount |
| 330 ~~320~~ | Capital requirements | Article 75 and 78 to 83 of Directive 2006/48/EC. | Capital requirements |

Figure 7

Advantages when using Row / Columns coordinates: It is excellent for presentation to humans. Everybody knows how to read a table without any explanation.

Advantages when using Data Point coordinates: The IT people would easily interpret the structure of the template, even without any knowledge about supervision.

The labels in the templates are not always written exactly in the same way. This is a very serious problem for IT and non-supervisory experts, as it is never clear if slightly different labels correspond to the same concept of different concepts.

Even worse, sometimes identical labels used in different context have different meanings. For example, the definitions of the exposure classes in SA and IRB have different meaning even when they use the same label (as “Institutions”). For that reason, such labels must have different IT identification, thus avoiding any confusion.

**Selecting Display Type**

As using labels is not always practical, each Data Point has also an ID or short code. SHORT CODES HAVE NOT ANY MEANING OR PARTICULAR ORDER. It is very easy display the short codes. Go to NAVI in DPM.xlsx and select "ID" as "Display Type" in the selection box. Now, returning to the reference list, the short codes of the Data Point are displayed:

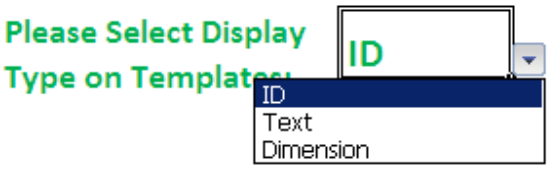



Figure 8

CR SA

| ID | Label | Legal References & Comments | Data Point La |
|---|---|---|---|
| 010 | Original exposure pre conversion factors | Article 74 paragraph 1 of amended Directive 2006/48/EC. | 457 |
| 020 | (-) Value adjustments and provision associated with the original exposure | | 458 |
| 030 | Exposure net of value adjustments and provisions | | 459 |
| 040-090 | CREDIT RISK MITIGATION (CRM) TECHNIQUES WITH SUBSTITUTION EFFECTS ON THE EXPOSURE | Credit risk mitigation techniques as defined in article 4 (30) of amended Directive 2006/48/EC that reduce the credit risk of an exposure or exposures via the substitution of exposures as defined | 551 |
| 040-050 | Unfunded credit protection: adjusted values (Ga) | Annex VIII part 3 points 87 to 89 of amended Directive 2006/48/EC. | 552 |
| 040 | Guarantees | Unfunded Credit Protection as defined in article 4 (32) of amended Directive 2006/48/EC different from Credit Derivatives | 553 |

Figure 9

Also, the 2013 CR SA Total template shows the Data Point short codes:

| CR SA Total | | Common to Template= SCC | | | CREDIT AND COUNTERPARTY CREDIT RISKS AND FREE DELIVERIES: ST 353 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 457 | | 458 | 459 | 568 | | | | | 465 |
| | | | ~~OF WHICH: ARISING FROM COUNTERPARTY CREDIT RISK~~ | | | 552. 478 | | 555 | | 461 | |
| | | | | | | 553 | 554 | 557 | 558 | 463 | 462 |
| | | 010 | ~~=~~ | 020 | 030=010+020 | 040 | 050 | 060 | 070 | 080 | 090 | 100=030-080+090 |
| 0010 | 255-N | | | | | | | | | | |
| | 254 | | | | | | | | | | |
| 0020 | 256 | | | | | | | | | | |
| 0030 | 264 | | | | | | | | | | |
| | 269 | | | | | | | | | | |
| 0040 | 271 | | | | | | | | | | |

Figure 10

Well, in reality the data Point model and the templates are internally linked with Excel references (as *=[DPM.xlsx]BASE!$F$5* ), but not with short codes or any other link. Labels and short codes are only methods to visualize the internal structure of the templates.

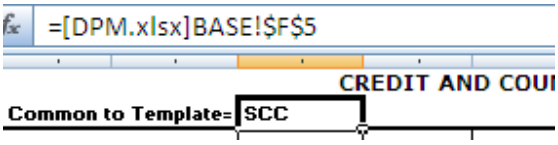



Figure 11

**Navigating in the Data Point model:**

First step: Go to the NAVI sheet in DPM.xlsx

| | A | B | C | D | E |
|---|---|---|---|---|---|
| 1 | CODE | DOMAIN | FROM | TO | FAMILY |
| 2 | BASE | Base financial meaning (nature) | SOF | SMI | Primary |
| 3 | MC | Main Category | 101 | 348 | Dimensions |
| 4 | AP | Approach to capital requirements | 351 | 439 | Dimensions |
| 5 | AT | Amount type | 451 | 535 | Dimensions |
| 6 | CG | Collateral / Guarantees [Credit risk mitigation] | 551 | 572 | Dimensions |
| 7 | CU | Currency | 581 | 594 | Dimensions |
| 8 | EC | Exposure classes | 601 | 649 | Dimensions |
| 9 | GA | Geographical area | 651 | NNNN | Dimensions |
| 10 | IU | Impaired / Unimpaired | 681 | 689 | Dimensions |
| 11 | PI | Percentage interval | 691 | 726 | Dimensions |
| 12 | PO | Portfolio | 731 | 734 | Dimensions |
| 13 | RT | Risk type | 741 | 746 | Dimensions |
| 14 | SE | Securitisation | 751 | 797 | Dimensions |
| 15 | TI | Time interval | 801 | 835 | Dimensions |

Figure 12

To find “Original Exposure” with short code 457, simply click on “Amount Type” and….

| | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| 1 | Navi | **Domain: Amount Type** | **Dimension** | **ID** | **Comment** | **Display** |
| 2 | | **Amount Type** | AT_1 | 451 | | 451 |
| 3 | | **Own funds for solvency purposes [CA]** | AT_1 | 452 | | 452 |
| 4 | | Outstanding | AT_1 | 453 | | 453 |
| 5 | | **Capital requirements [CA]** | AT_1 | 454 | | 454 |
| 6 | | Capital requirements | AT_1 | 455 | | 455 |
| 7 | | **Credit risk [CR]** | AT_1 | 456 | | 456 |
| 8 | | Original exposure pre conversion factors | AT_1 | 457 | | 457 |
| 9 | | Value adjustments and provisions | AT_1 | 458 | This item has different names in SA and IRB, although they have the same definition | 458 |

Figure 13

All the different concepts used in the templates must be defined in the Data Point model.

There are three basic items in each entry of the Data Point:

Label: It is the name of the concept in the templates. As the same concept is used with slightly different labels in the templates, not all will match 100%

Dimension: Identify the type of cut/slice/characteristic/disaggregation/breakdown/index of which the concept is part. “Original Exposure” is a specific “Amount Type”. The short code (at this moment) for Amount Type is “AT_1” and has NO MEANING, only to facilitate the reading and presentation.

ID: It is the short name of the concept, and has NO MEANING, only to facilitate the reading and presentation. In this case “Original Exposure” has a short code (at this moment) of 457.

All the figures in the templates are also a type of nature / financial meaning. The list is BASE sheet:

| | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| 1 | Navi | Base financial meaning (nature) | Item Type | Name | Comment | Display |
| 2 | | **Own funds for solvency purposes [CA, GS]** | BASE | **SOF** | | Own funds for solvency purposes |
| 3 | | **Capital requirements [CA, GS]** | BASE | **SCR** | | Capital requirements [CA, GS] |
| 4 | | Credit risk and settlement/delivery risk [GS] | BASE | SSD | There are items that are percentages in the "Amount type" dimension | Credit risk and settlement/ |
| 5 | | Credit risk (Credit, counterparty credit and dilution risks and free delivery) [CA, CR] | BASE | SCC | There are items that are percentages in the "Amount type" dimension | Credit risk (Credit, counterpart |
| 6 | | Settlement/delivery risk [CA, CR TB SETT] | BASE | SSD | | Settlement /delivery risk [CA, CR |
| 7 | | Market risk (Positions, foreign exchange and commodity risks ) [CA MKR] | BASE | SMR | | Market risk (Positions, foreign |
| 8 | | Operational risk [OPR] | BASE | SOR | There is an item with "Number of events" in OPR | Operational risk [OPR] |
| 9 | | Fixed overheads [CA] | BASE | SFO | | Fixed overheads [CA] |
| 10 | | Other and transitional capital requirements [CA] | BASE | SOT | | Other and transitional capital |
| 11 | | **Memorandum Items [CA]** | BASE | **SMI** | There are two items that are percentages in the "Amount type" dimension, and even others in Main Category dimension | Memorandum Items [CA] |

Figure 14

At the end, the interpretation of the templates is identifying the components of each cell. The identification with Row / Column is very good for presenting and locating the cell in the template, but does not express too much about the cell composition. The identification with Data Point model is very good to identify how the cell is structured, but does not help locating the cell in the templates. Even worse, two different cells in the templates would be the same cell according to its composition (i.e. cells the CR SA Totals connected with CA).

**Cell Dictionary**

A list of cells, with both the coordinates Table/Row/Column and also Data Point model, is in "Cells" in DPM.xlsx BOTH ARE English text, or as IDs of data Point references (select "Display Type" button on DPM.xlsx NAVI) .

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CR SA Details | Goverment | 0010 | 010 | Credit risk (( | SA exposure | Banking boc | Governmen | Total expos | Original exposure pre conversion factors |
| CR SA Details | Goverment | 0010 | 020 | Credit risk (( | SA exposure | Banking boc | Governmen | Total expos | Value adjustments and provisions |
| CR SA Details | Goverment | 0010 | 030=010+020 | Credit risk (( | SA exposure | Banking boc | Governmen | Total expos | Exposure net of value adjustments and provisions |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CR SA Details | Goverment | 0010 | 010 | SCC | 353 | 734 | 627 | 255-N | 457 |
| CR SA Details | Goverment | 0010 | 020 | SCC | 353 | 734 | 627 | 255-N | 458 |
| CR SA Details | Goverment | 0010 | 030=010+020 | SCC | 353 | 734 | 627 | 255-N | 459 |

Figure 15

This is only a formal way to express the structure of each cell in an IT oriented way, better for IT people than:

Some totals in template "CR SA Total" and connected (are the same) with the template CA (see CP04A2.xlsx). In this case of two cells connected from a template to other, this is the result:

**CR SA Total**

| | | Common to Template= C |
|---|---|---|
| | | Original exposure pre conversion factors |
| | | ~~OF WHICH: ARISING FROM COUNTERPARTY CREDIT RISK~~ |
| | | 010 |
| 0010 | Total exposures | |

Figure 16

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 23 | 7719 | CA | 1410 | 010 | Credit risk (( | SA exposure | Banking boc | Capital requ | Total exposures | Same than 7732 |
| 24 | 7720 | CA | 1420 | 010 | Credit risk (( | SA exposure | Banking boc | Capital requ | Central Governments an | Same than 7740 |
| 25 | 7721 | CA | 1430 | 010 | Credit risk (( | SA exposure | Banking boc | Capital requ | Regional governments o | Same than 7741 |
| 26 | 7722 | CA | 1440 | 010 | Credit risk (( | SA exposure | Banking boc | Capital requ | Administrative bodies a | Same than 7742 |
| 27 | 7723 | CA | 1450 | 010 | Credit risk (( | SA exposure | Banking boc | Capital requ | Multilateral developme | Same than 7743 |
| 35 | 7731 | | | | | | | | | |
| 36 | 7732 | CR SA Total | 010 | 330 | Credit risk (( | SA exposure | Banking boc | Total expos | Capital requirements | Same than 7719 |
| 37 | 7733 | | | | | | | | | |
| 44 | 7740 | CR SA Total | 240 | 330 | Credit risk (( | SA exposure | Banking boc | Central Gov | Capital requirements | Same than 7720 |
| 45 | 7741 | CR SA Total | 250 | 330 | Credit risk (( | SA exposure | Banking boc | Regional go | Capital requirements | Same than 7721 |
| 46 | 7742 | CR SA Total | 260 | 330 | Credit risk (( | SA exposure | Banking boc | Administrat | Capital requirements | Same than 7722 |
| 47 | 7743 | CR SA Total | 270 | 330 | Credit risk (( | SA exposure | Banking boc | Multilateral | Capital requirements | Same than 7723 |

Figure 17

| | | Breakdown of exposures by risk weights | | | | | | | | | | Risk weighted exposure amount | Capital requirements |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 20% risk weight | 35% risk weight | 50% risk weight | 70% risk weight | 75% risk weight | 0% risk weight | Ban ks ' exe mpt | 150% risk weight | 200% risk weight | Other risk weights | | |
| | | 220 | 230 | 240 | 250 | 260 | 270 | 280 | 290 | 300 | 310 | 320 | 330 |
| 0010 | Total exposures | | | | | | | | | | | | Cell linked to CA |

Figure 18

**CR SA Total**

| | | Breakdown of exposures by risk weights | | | | | | | | | | Risk weighted exposure amount | Capital requirements |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 20% risk weight | 35% risk weight | 50% risk weight | 70% risk weight | 75% risk weight | 0% risk weight | | 150% risk weight | 200% risk weight | Other risk weights | | |
| | | | | | | | | Wh bou t cre dit | | | | | |
| | | 220 | 230 | 240 | 250 | 260 | 270 | 280 | 290 | 300 | 310 | 320 | 330 |
| 0220 | **200% risk weight** | | | | | | | | | | | | |
| 0230 | **Other risk weights** | | | | | | | | | | | | |
| | **Breakdown of exposures by e** | | | | | | | | | | | | |
| 0240 | **Central Governments and central banks** | | | | | | | | | | | | Cell linked to CA |
| 0250 | **Regional governments or local authorities** | | | | | | | | | | | | Cell linked to CA |
| 0260 | **Administrative bodies and non-commercial undertakings** | | | | | | | | | | | | Cell linked to CA |
| 0270 | **Multilateral developments banks** | | | | | | | | | | | | Cell linked to CA |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **1390** | **Capital requirements [CA]** | **2.1** | ***TOTAL CAPITAL REQUIREMENTS FOR CREDIT, COUNTERPARTY CREDIT AND DILUTION RISKS AND FREE DELIVERIES*** | **Credit risk (Credit, counterpart y credit and** | **=2.1.1 + 2.1.2 BASE from now on until 2.1.1.2 = Credit risk (Credit, counterparty credit and dilution risks and free delivery) [CA, CR] and Capital requirements and Banking book** | Capital requirement s | Ban boo |
| **1400** | **Standardised approach (SA)** | **2.1.1** | **Standardised approach (SA)** | | CR SA template at the level of total exposures.<br>=(2.1.1.1a or 2.1.1.1b)+2.1.1.2<br>2.1.1.1a. or 2.1.1.1b because national supervisors may alternatively require to apply the IRB exposure classes referred to in *Article 86 of Directive 2006/48/EC* , paragraph 1 for reporting the credit risk standardised approach (e.g. in case of simoultaneous application of stardard and IRB approaches). | | |
| **1410** | **SA exposures classes excluding securitisation** | **2.1.1.1** | ***SA exposure classes excluding securitisation positions*** | | **CR SA template at the level of total exposures.<br>The SA exposure classes are those mentioned in Article 79, paragraph 1of Directive 2006/48/EC, excluding securitisation positions.<br>| 2.1.1.1a.i , i = 01 to 15 Additional Data Point member here = SA exposures classes excluding** | Total exposures | |
| **1420** | **Central Governments and central banks** | 2.1.1.1.01 | Central governments or central banks | | CR SA Total. Claims or contingent claims | | |
| **1430** | **Regional governments or local authorities** | 2.1.1.1.02 | Regional governments or local authorities | | CR SA Total. Claims or contingent claims | | |

Figure 19

**Dimensions:**

The main problem for the IT people is the identification of all and each one of the different the type of cut/slice/characteristic/disaggregation/breakdown/index applicable to each financial meaning.

In a classical notation, from an IT point of view, COREP is a set of tables sharing different combinations of indexes, with the following structure:

BASE_A $_{(index\_a, index\_b, index\_c)}$ BASE_B $_{(index\_b, index\_c)}$, BASE_C $_{(index\_c, idex\_j, index\_k)}$, ...

At the end of the road, the Data Point model is not more than a translation of COREP Supervisory templates, organized in presentation point of view, into a set of tables organized in an IT reporting point of view.

Selecting "Display Type" = Dimension in sheet NAVY DPM.xlsx and going to Cells sheet, the tabular structure of COREP is now evident (at least for IT colleagues :- )

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CA | | 1390 | 010 | BASE | AT_1 | PO_1 | | | | | |
| CA | | 1400 | 010 | BASE | AT_1 | PO_1 | AP_1 | | | | |
| CA | | 1410 | 010 | BASE | AT_1 | PO_1 | AP_1 | | | *Same than* | *7732* |
| CA | | 1420 | 010 | BASE | AT_1 | PO_1 | AP_1 | EC_1 | | *Same than* | *7740* |
| CA | | 1430 | 010 | BASE | AT_1 | PO_1 | AP_1 | EC_1 | | *Same than* | *7741* |
| CA | | 1440 | 010 | BASE | AT_1 | PO_1 | AP_1 | EC_1 | | *Same than* | *7742* |
| CA | | 1450 | 010 | BASE | AT_1 | PO_1 | AP_1 | EC_1 | | *Same than* | *7743* |
| | | | | | | | | | | | |
| CR SA Total | | 0010 | 330 | BASE | AP_1 | PO_1 | | AT_1 | | *Same than* | *7719* |
| | | | | | | | | | | | |
| CR SA Total | | 0240 | 330 | BASE | AP_1 | PO_1 | EC_1 | AT_1 | | *Same than* | *7720* |
| CR SA Total | | 0250 | 330 | BASE | AP_1 | PO_1 | EC_1 | AT_1 | | *Same than* | *7721* |
| CR SA Total | | 0260 | 330 | BASE | AP_1 | PO_1 | EC_1 | AT_1 | | *Same than* | *7722* |
| CR SA Total | | 0270 | 330 | BASE | AP_1 | PO_1 | EC_1 | AT_1 | | *Same than* | *7723* |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| CR SA Details | Goverment | 0010 | 010 | BASE | AP_1 | PO_1 | EC_2 | | AT_1 | | |
| CR SA Details | Goverment | 0010 | 020 | BASE | AP_1 | PO_1 | EC_2 | | AT_1 | | |
| CR SA Details | Goverment | 0010 | 030=010+020 | BASE | AP_1 | PO_1 | EC_2 | | AT_1 | | |
| CR SA Details | Goverment | 0010 | 040 | BASE | AP_1 | PO_1 | EC_2 | | CG_1 | | |
| CR SA Details | Goverment | 0010 | 050 | BASE | AP_1 | PO_1 | EC_2 | | CG_1 | | |
| | | | | | | | | | | | |
| CR SA Details | Goverment | 0010 | 320 | BASE | AP_1 | PO_1 | EC_2 | | AT_1 | | |
| | | | | | | | | | | | |
| CR SA Details | Intitutions | 0010 | 010 | BASE | AP_1 | PO_1 | EC_2 | | AT_1 | | |
| CR SA Details | Intitutions | 0010 | 020 | BASE | AP_1 | PO_1 | EC_2 | | AT_1 | | |

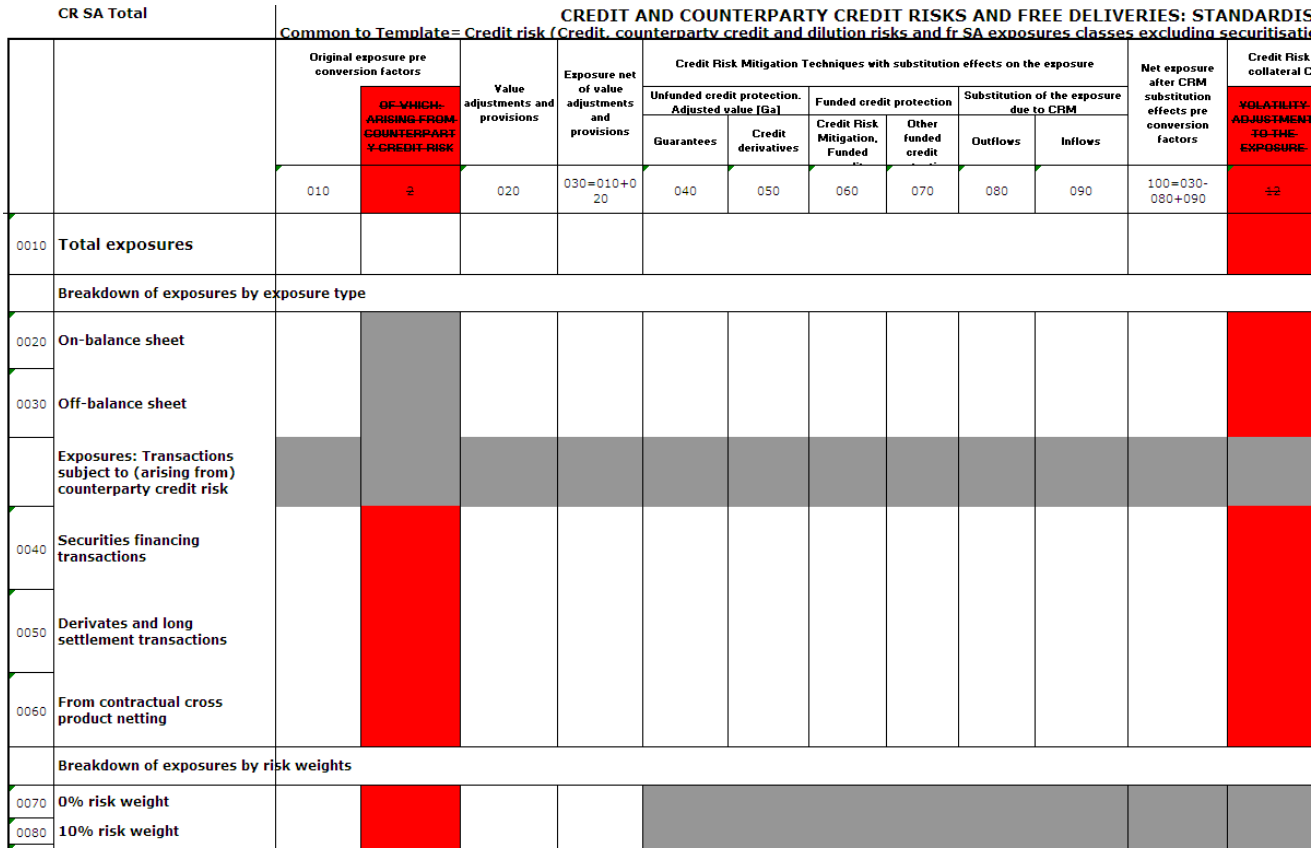
Figure 20

# DEFINITION OF TERMS (*IT ORIENTED*)

**Templates:**

A template is a supervisory organized (but IT arbitrary) collection of cells, usually sharing implicitly a BASE and some fixed members, with the cells organized into rows and columns, being rows and columns also members.

As example, let's see the **2013 CR SA Total template**:



CR SA Total

CREDIT AND COUNTERPARTY CREDIT RISKS AND FREE DELIVERIES: STANDARDIS

Common to Template= Credit risk (Credit, counterparty credit and dilution risks and fr SA exposures classes excluding securitisati

| | | Original exposure pre conversion factors | ~~OF WHICH: ARISING FROM COUNTERPARTY CREDIT RISK~~ | Value adjustments and provisions | Exposure net of value adjustments and provisions | Credit Risk Mitigation Techniques with substitution effects on the exposure | | | | | | Net exposure after CRM substitution effects pre conversion factors | Credit Risk collateral C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Unfunded credit protection. Adjusted value [Ga] | | Funded credit protection | | Substitution of the exposure due to CRM | | | |
| | | | | | | Guarantees | Credit derivatives | Credit Risk Mitigation, Funded | Other funded credit | Outflows | Inflows | | ~~VOLATILITY ADJUSTMENT TO THE EXPOSURE~~ |
| | | 010 | ~~2~~ | 020 | 030=010+020 | 040 | 050 | 060 | 070 | 080 | 090 | 100=030-080+090 | ~~12~~ |
| 0010 | Total exposures | | | | | | | | | | | | |
| | Breakdown of exposures by exposure type | | | | | | | | | | | | |
| 0020 | On-balance sheet | | | | | | | | | | | | |
| 0030 | Off-balance sheet | | | | | | | | | | | | |
| | Exposures: Transactions subject to (arising from) counterparty credit risk | | | | | | | | | | | | |
| 0040 | Securities financing transactions | | | | | | | | | | | | |
| 0050 | Derivates and long settlement transactions | | | | | | | | | | | | |
| 0060 | From contractual cross product netting | | | | | | | | | | | | |
| | Breakdown of exposures by risk weights | | | | | | | | | | | | |
| 0070 | 0% risk weight | | | | | | | | | | | | |
| 0080 | 10% risk weight | | | | | | | | | | | | |

Figure 21 - *CP04A3.xlsx [2013 CR SA Total]*

Each cell (fact) is univocally identified by a **BASE** (primary Item) and a number of members (each cut/slice/characteristic/disaggregation/breakdown/index applicable to the cell). The **primary item** of the 2013 CR SA Total template is Credit risk (Credit, counterparty credit and dilution risks and free delivery) [CA, CR], or SCC (primary item name).

| | | **CR SA Total** |
|---|---|---|
| SCC | 353 | 734 |

Figure 22 - *CP04A3.xlsx [2013 CR SA Total]*

| Credit risk (Credit, counterparty credit and dilution risks and free delivery) | BASE | SCC |
|---|---|---|

Figure 23 - *DPM.xlsx [BASE]*

An absolute cell identification is the enumeration of the BASE and numbers of the template, plus the ones in the column, plus the ones in the row (if existing). The identification of a cell would be also relative to a combination of row/column into a template. A relative cell identification, in the context of a template, is the enumeration of the BASE and numbers in the column (if existing), as well as in the row (if existing).

| 7726 | CR SA Total | | 0010 | 010 | SCC | 353 | 734 | 255-N | 457 |
|---|---|---|---|---|---|---|---|---|---|

Figure 24 - *DPM.xlsx [Cells]*

Cell identification is independent of rows and columns. The rows and columns in a template may be interchanged, but the list of members identifying the cell remains the same (invariant topology).

For example, the cell **7726** is the combination of:

- SCC: Primary item name
- 353: SA exposures classes excluding securitisation positions
- 734: Banking book
- 255-N: Total exposures (used as nominative text)
- 457: Original exposure pre conversion factors

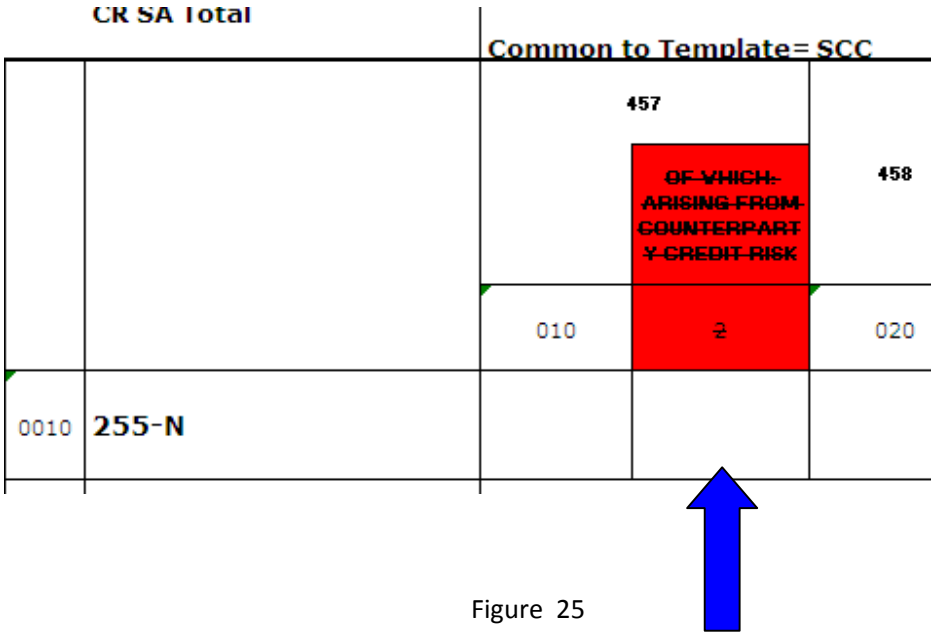



Figure 25

**Data Point Model**:

A Data Point Model is a complete list of all BASE and member items used in the templates. For clarity purposes, the Data Point Model is organized as a book of Excel, with:

Navigator: Main spreadsheet linking BASE and Families of Dimensions.

| CODE | DOMAIN | FROM | TO | FAMILY |
|---|---|---|---|---|
| | Base financial meaning (nature) | SOF | SMI | Primary |
| MC | Main Category | 101 | 348 | Dimensions |
| AP | Approach to capital requirements | 351 | 439 | Dimensions |
| AT | Amount type | 451 | 535 | Dimensions |
| CG | Collateral / Guarantees [Credit risk mitigation] | 551 | 572 | Dimensions |
| CU | Currency | 581 | 594 | Dimensions |
| EC | Exposure classes | 601 | 649 | Dimensions |
| GA | Geographical area | 651 | 663 | Dimensions |
| IU | Impaired / Unimpaired | 681 | 689 | Dimensions |
| PI | Percentage interval | 691 | 726 | Dimensions |
| PO | Portfolio | 731 | 734 | Dimensions |
| RT | Risk type | 741 | 746 | Dimensions |
| SE | Securitisation | 751 | 797 | Dimensions |
| TI | Time interval | 801 | 835 | Dimensions |

Página

Figure 26 - *DPM.xlsx [NAVI]*

BASE spreadsheet: List of BASE (primary items), from a supervisory point of view.

Family of Dimensions: Spreadsheet with a several Dimensions (with some relation among them from a supervisory point of view) and the members of such Dimensions.

| CODE | DOMAIN | FROM | TO | FAMILY |
|---|---|---|---|---|
| MC | Main Category | 101 | 348 | Dimensions |

Figure 27 - *DPM.xlsx [NAVI]*

Dimension: Each type of cut/slice/characteristic/disaggregation/breakdown/index applicable to a BASE.

| Navi | Domain: Main category | Level | Name |
|---|---|---|---|
| | **Own funds for solvency purposes [CA, GS]** | Explicit dimension | 101 |
| | Total own funds | 1 | 102 |
| | Original own funds | 2 | 103 |
| | Eligible Capital | 3 | 104 |

Figure 28 - *DPM.xlsx [MC]*

Member: Each specific cut/slice/characteristic/disaggregation/breakdown/index being of the type of a Dimension.

RESTRICTION: By definition, a cell identification MUST have only zero or one member of each dimension.

A long spreadsheet with a cell dictionary identifying each cell and cell characteristics, among others:

1. Cell identification according to Table/Z-axis/row/column notation,
2. Cell identification according to DPM notation,
3. Cell identification according to the number of the cell into the Table (and Z-axis), useful for countries using such method.

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7715 | CA | | 1370 | 010 | SCR | 252 | | | | | | |
| 7716 | CA | | 1380 | 010 | SCR | 253 | | | | | | |
| 7717 | CA | | 1390 | 010 | SCC | 455 | 734 | | | | | |
| 7718 | CA | | 1400 | 010 | SCC | 455 | 734 | 352 | | | | |
| 7719 | CA | | 1410 | 010 | SCC | 455 | 734 | 353 | | | *Same than* | *7732* |
| 7720 | CA | | 1420 | 010 | SCC | 455 | 734 | 353 | 603 | | *Same than* | *7740* |
| 7721 | CA | | 1430 | 010 | SCC | 455 | 734 | 353 | 604 | | *Same than* | *7741* |
| 7722 | CA | | 1440 | 010 | SCC | 455 | 734 | 353 | 605 | | *Same than* | *7742* |
| 7723 | CA | | 1450 | 010 | SCC | 455 | 734 | 353 | 606 | | *Same than* | *7743* |
| 7731 | | | | | | | | | | | | |
| 7732 | CR SA Total | | 0010 | 330 | SCC | 353 | 734 | 255-N | 455 | | *Same than* | *7719* |
| 7733 | | | | | | | | | | | | |
| 7740 | CR SA Total | | 0240 | 330 | SCC | 353 | 734 | 603 | 455 | | *Same than* | *7720* |
| 7741 | CR SA Total | | 0250 | 330 | SCC | 353 | 734 | 604 | 455 | | *Same than* | *7721* |
| 7742 | CR SA Total | | 0260 | 330 | SCC | 353 | 734 | 605 | 455 | | *Same than* | *7722* |
| 7743 | CR SA Total | | 0270 | 330 | SCC | 353 | 734 | 606 | 455 | | *Same than* | *7723* |
| 7742 | | | | | | | | | | | | |
| 7743 | | | | | | | | | | | | |
| 7744 | CR SA Details | Goverment | 0010 | 010 | SCC | 353 | 734 | 627 | 255-N | 457 | | |
| 7745 | CR SA Details | Goverment | 0010 | 020 | SCC | 353 | 734 | 627 | 255-N | 458 | | |
| 7746 | CR SA Details | Goverment | 0010 | 030=010+020 | SCC | 353 | 734 | 627 | 255-N | 459 | | |

Figure 29 - *DPM.xlsx [Cells]*

**Linking Templates and Data Point Model:**

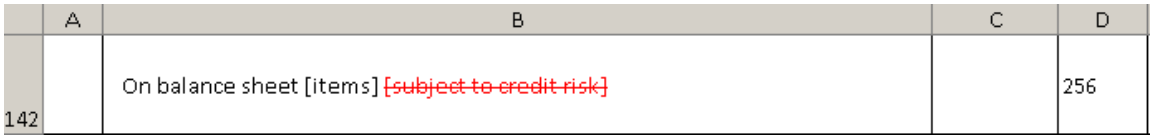
The cells of the templates are linked to the cells of Data Point Model using Excel references (as *=[DPM.xlsx]MC!$D$142* ), so they are invariant and may simulate different numbering approaches.

Insert or delete cells, rows and columns or change does not change the numbering or references, as all of that is automatically updated for Excel.

Identify a cell in a template is to enumerate the BASE and all the members of that cell according to the DPM.

Templates and Data Point Model Excel files are linked. Therefore should be in the same folder.

Figure 30 - *CP04A3.xlsx [2013 CR SA Total]*



| | A | B | C | D |
|---|---|---|---|---|
| 142 | | On balance sheet [items] ~~[subject to credit risk]~~ | | 256 |

Figure 31 - *DPM.xlsx [MC]*

**Selection button:**

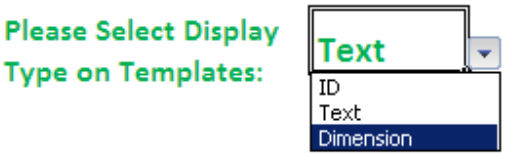



Figure 32

There are three options: ID, Text and Dimension. It is managed with this Excel formula in DPM.xlsx sheets, column F : =SI(NAVI!$I$3="ID";D2;SI(NAVI!$I$3="Dimension";C2;B2)) providing the ID, Tat and Dimension are in the Columns B, C and D

**Validations / Formulas**

The validations are referenced by the members involved (whether in header, rows or columns) and are independent of the templates. Validation is applied to all the combinations (rows or columns) where the members appear in the same context (as in XBRL formulas).

The validation rules would be both expressed as numbers in the DPM or as labels in the DPM:

*699 ≥ 699 [617]+699 [614]*

*100% risk weight ≥ 100% risk weight [Past due items]+100% risk weight [Secured on (by) real state property]*

*CP04A3.xlsx [Validations]*

Validations only apply when all the cells are non-empty (reported). Some cells never should be reported, as in cases of grey/red/criss-crossed, as the supervisory model defines such cells as not-reportable.

In some cases of “proporcionality”, some ranges of cells should not be reported (see applicable guidelines).To simplify the validation in such cases of "proportionality" (entities that fill only a part), it is important to distinguish zero (data is reported, but the data is zero) or empty (data is not reported).

Verification that a particular cell is (or not) reported should be explicitly made.

**PROVISIONAL AND ARBITRARY NOTATION FOR BASE AND THREE DIGITS MEMBER, FOR EXPLANATORY PURPOSES ONLY**

Each BASE has a **4**-letter identification

Each member has a basic **3** digit identification, which can be suffixed for open (typed) dimensions (obligor grade, risk with 4 digits of precision or others).

A member name can never end in zero (zero ending is skipped), to distinguish DPM numbers from original supervisory rows and columns (which always ends in zero)

To identify a dimension, please go to the Data Point Model. The first row with a different Dimension ID is the Dimension.

To identify a total, please go to the Data Point Model. The Total have NOT Dimension, because several “children” dimensions may share the same Total (redundancy), and therefore the Total should be defined in the “parent” Dimension/Base only.

TOPIC OPEN: Membership numbers lower than 900 ??? are unique to the taxonomy (COREP FINREP...), the above of 900 are common to eurofiling

You can automate the identification of combinations of hypercubes based on the above

TOPIC OPEN: MEMBERS BELONGING TO SEVERAL DIMENSIONS