

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

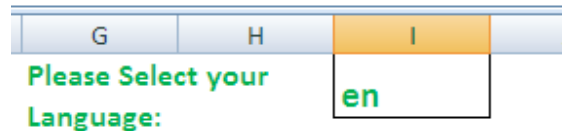
(Templates prepared: CA, Group Solvency, CR SA Totals and Details)

Starting point:



CP04A2.xlsx CP04A3.xlsx DPM.xlsx
files are linked).

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



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: Common to Template= Credit risk (Credit, counterparty credit and dilution risks and fr								
		Original exposure pre conversion factors		Value adjustments and provisions	Exposure net of value adjustments and provisions	Credit Risk Mitigation Techniques with substitutor				
		010	020			Unfunded credit protection. Adjusted value [Ga]		Funded credit protection		
						Guarantees	Credit derivatives	Credit Risk Mitigation. Funded	Other funded credit	
			OF WHICH: ARISING FROM COUNTERPARTY CREDIT RISK		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-eps.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 risk weight	FORDELT PÅ RISIKOVEKT	Desglose de exposiciones por ponderación
0070	0% risk weight	0070 0% risikovekt	0070 Ponderación 0%
0080	10% risk weight	0080 10% risikovekt	0080 Ponderación 10%
0090	20% risk weight	0090 20% risikovekt	0090 Ponderación 20%
0100	35% risk weight	0100 35% risikovekt	0100 Ponderación 35%
0110	50% risk weight	0110 50% risikovekt	0110 Ponderación 50%
0120 (↔)	50% risk weight of which Past due items	0120 50% risikovekt hvorav Forfalte elementer	0120 Ponderación 50% de lo cual Pagos vencidos
	Without credit assessment by a nominate ECAI	Uten kreditt vurdering av en oppnevnt ECAI	Sin calificación crediticia por parte de una ECAI
0130 (↔)	50% risk weight of which secured by commercial real estate	0130 50% risikovekt hvorav sikret ved næringseiendom staten	0130 Ponderación 50% de lo cual Asegurado por inmuebles comerciales
0140	70% risk weight	0140 70% risikovekt	0140 Ponderación 70%
0150	75% risk weight	0150 75% risikovekt	0150 Ponderación 75%
0160	100% risk weight	0160 100% risikovekt	0160 Ponderación 100%
0170 (↔)	100% risk weight of which Past due items	0170 100% risikovekt hvorav Forfalte elementer	0170 Ponderación 100% de lo cual Pagos vencidos
0180 (↔)	100% risk weight of which Without credit assessment by a nominate ECAI	0180 100% risikovekt hvorav Uten kreditt vurdering av en oppnevnt ECAI	0180 Ponderación 100% de lo cual Sin calificación crediticia por parte de una ECAI
0190 (↔)	100% risk weight of which Secured on (by) real state property	0190 100% risikovekt hvorav Sikret ved fast statlig eiendom	0190 Ponderación 100% de lo cual Asegurado por bienes inmuebles
0200	150% risk weight	0200 150% risikovekt	0200 Ponderación 150%
0210 (↔)	150% risk weight of which Past due items	0210 150% risikovekt hvorav Forfalte elementer	0210 Ponderación 150% de lo cual Pagos vencidos

Figure 2

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

row 150 ≥ row 160 + row 180								
75% risk weight ≥	100% risk weight	+	100% risk weight	[Wi				
75% risk weight ≥	100% risk weight	+	100% risk weight	[Without credit assessment]				

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:

row 0150 ≥ row 0160 + row 0180				(ERROR IN THE ORIGINAL: IT SHOULD BE "row 0160 ≥ row 0170 + row 0190"				
100% risk weight ≥	100% risk weight of which Secured on (by) real state property	+	100% risk weight of which Secured on (by) real state property					
100% risk weight ≥	100% risk weight of which Past due items	+	100% risk weight of which Secured on (by) real state property					

Or in Norwegian:

row 0150 ≥ row 0160 + row 0180				(ERROR IN THE ORIGINAL: IT SHOULD BE "row 0160 ≥ row 0170 + row 0190"				
100% risikovekt ≥	100% risikovekt hvorav Sikret ved fast statlig eiendom	+	100% risikovekt hvorav Sikret ved fast statlig eiendom					
100% risikovekt ≥	100% risikovekt hvorav Forfalte elementer	+	100% risikovekt hvorav Sikret ved fast statlig eiendom					

Figure 6

THE VALIDATIONS WOULD BE EXPRESSED 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 [Colour caption](#) [2013 CR SA Total](#) [2013 CR SA Details](#) [2013 CR SA Ref list](#)

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

CR SA			
ID	Label	Legal References & Comments	Data Point
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
320 340	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:

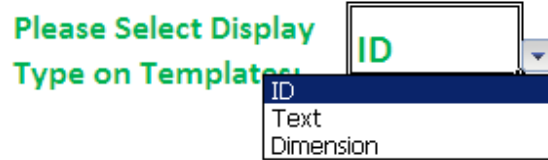


Figure 8

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
040-060	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			568						465		
		457	458	459	552. 478		555		461		465		
		OF WHICH ARISING FROM COUNTERPARTY CREDIT RISK			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.

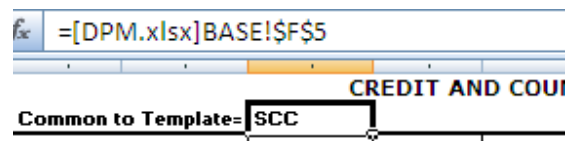


Figure 11

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	Navj	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, counterparty
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	Government	0010	010	Credit risk (ISA exposure Banking boc Governmen	Total exposi	Original exposure pre conversion factors			
CR SA Details	Government	0010	020	Credit risk (ISA exposure Banking boc Governmen	Total exposi	Value adjustments and provisions			
CR SA Details	Government	0010	030=010+020	Credit risk (ISA exposure Banking boc Governmen	Total exposi	Exposure net of value adjustments and provisions			

CR SA Details	Government	0010	010	SCC	353	734	627	255-N	457
CR SA Details	Government	0010	020	SCC	353	734	627	255-N	458
CR SA Details	Government	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= (
				Original exposure pre conversion factors	
				OF WHICH: ARISING FROM COUNTERPARTY CREDIT RISK	
				2	
				010	
0010		Total exposures			

Figure 16

23	7719	CA	1410	010	Credit risk (ISA exposure Banking boc Capital requ	Total exposures	Same than	7732
24	7720	CA	1420	010	Credit risk (ISA exposure Banking boc Capital requ	Central Governments an	Same than	7740
25	7721	CA	1430	010	Credit risk (ISA exposure Banking boc Capital requ	Regional governments o	Same than	7741
26	7722	CA	1440	010	Credit risk (ISA exposure Banking boc Capital requ	Administrative bodies ai	Same than	7742
27	7723	CA	1450	010	Credit risk (ISA exposure Banking boc Capital requ	Multilateral developme	Same than	7743
35	7731							
36	7732	CR SA Total	010	330	Credit risk (ISA exposure Banking boc Total exposi	Capital requirements	Same than	7719
37	7733							
44	7740	CR SA Total	240	330	Credit risk (ISA exposure Banking boc Central Gov	Capital requirements	Same than	7720
45	7741	CR SA Total	250	330	Credit risk (ISA exposure Banking boc Regional go	Capital requirements	Same than	7721
46	7742	CR SA Total	260	330	Credit risk (ISA exposure Banking boc Administrat	Capital requirements	Same than	7722
47	7743	CR SA Total	270	330	Credit risk (ISA 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	80% risk weight	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
							IRB	Standardised					
		220	230	240	250	260	270	280	290	300	310	320	330
0220	200% risk weight												
0230	Other risk weights												
Breakdown of exposures by exposure class													
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, counterparty credit and dilution risks and free deliveries)	=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 deliveries) [CA, CR] and Capital requirements and Banking book	Capital requirements	Banking book
1400	Standardised approach (SA)	2.1.1	Standardised approach (SA)		CR SA template at the level of total exposures. =(2.1.1.a or 2.1.1.b)+2.1.1.2 2.1.1.a or 2.1.1.b because national supervisors may alternatively require to apply the IRB exposure classes referred to in Article 88 of Directive 2006/48/EC, paragraph 1 for reporting the credit risk standardised approach (e.g. in case of simultaneous application of standard 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. The SA exposure classes are those mentioned in Article 79, paragraph 1 of Directive 2006/48/EC, excluding securitisation positions. 1.2.1.1.a.i, i = 01 to 15 Additional Data Point member here = SA exposures classes excluding	Total exposures	
1420	Central Governments and central banks	2.1.1.01	Central governments or central banks		CR SA Total.Claims or contingent claims		
1430	Regional governments or local authorities	2.1.1.02	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, index_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	Government	0010	010	BASE	AP_1	PO_1	EC_2		AT_1	
CR SA Details	Government	0010	020	BASE	AP_1	PO_1	EC_2		AT_1	
CR SA Details	Government	0010	030=010+020	BASE	AP_1	PO_1	EC_2		AT_1	
CR SA Details	Government	0010	040	BASE	AP_1	PO_1	EC_2		CG_1	
CR SA Details	Government	0010	050	BASE	AP_1	PO_1	EC_2		CG_1	
CR SA Details	Government	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											Credit Risk collateral C
		Common to Template= Credit risk (Credit, counterparty credit and dilution risks and fr SA exposures classes excluding securitisation)											
		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	
						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		
		010	±	020	030=010+020	040	050	060	070	080	090	100=030-080+090	±±
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

CR SA Total		Common to Template = SCC		
			457	
			OF WHICH: ARISING FROM: COUNTERPART Y-CREDIT RISK	458
		010	=	020
0010	255-N			

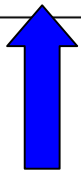


Figure 25

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)	30F	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

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	Government	0010	010	SCC	353	734	627	255-N	457		
7745	CR SA Details	Government	0010	020	SCC	353	734	627	255-N	458		
7746	CR SA Details	Government	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!D142`), 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!I3="ID";D2;SI(NAVI!I3="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:

$699 \geq 699 [617] + 699 [614]$

$100\% \text{ risk weight} \geq 100\% \text{ risk weight [Past due items]} + 100\% \text{ risk weight [Secured on (by) real state property]}$

CPO4A3.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 "proportionality", 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