EN

ANNEX IV

RESULTS SUPERVISORY BENCHMARK PORTFOLIOS

PART I: GENERAL INSTRUCTIONS

1. Information shall be submitted only for those counterparties and portfolios where an actual exposure exists at the reference date in the form of either an Original Exposure or an Exposure after CRM. Counterparties and portfolios for which no exposure exists at the reference date shall not be submitted.

2. Information shall be submitted only for those exposures for which an internal model has been approved by the competent authority for the calculation of risk weighted exposure amounts (RWA). For the benchmarking portfolios in the tables C102 and C103, exposures under the Standardised Approach and exposures for which the temporary or permanent partial use of the Standardised Approach has been permitted by the respective competent authority, shall be excluded. For the counterparties in the table C101, no exposure shall be included for the counterparty code ending with “STDA”. For the remaining counterparty codes, exposures under the Standardised Approach shall also be excluded

3. Information not required or not applicable shall not be submitted; those shall either be left blank or the indication ‘NULL’ shall be inserted. This also applies to EAD-weighted quantities that cannot be calculated. Zero values shall be reported only where the intention is to report a quantity of zero. Neither of the indications “blank” or ‘NULL’ shall be used to report quantities that are zero.

4. Monetary amounts shall be reported in the same way as they are reported for calculating own funds requirements at a specific reference date in accordance with Implementing Regulation (EU) No 680/2014.

PART II: TEMPLATE RELATED INSTRUCTIONS

C 101 – Details on exposures in Low Default Portfolios by counterparty

Specialised lending exposures shall be excluded.

Column	Label	Legal reference	Instructions
010	Counterparty Code	Column 010 of template 101 of Annex I	The counterparty code assigned in column 010 of template C101 of Annex I to the counterparty included in the low default portfolio ('LDP') samples portfolios shall be reported. This code is a row identifier and shall be unique for each row in the table.
020	Exposure class	Paragraph 78 of Annex II to Implementing Regulation (EU) No 680/2014	Each portfolio shall be assigned to one of the following exposure classes: (a) Central banks and central governments; (b) Institutions; (c) Corporate – SME; (d) Corporate – Specialised lending; (e) Corporate – Other; (f) Retail – Secured by real estate SME; (g) Retail – Secured by real estate non-SME; (h) Retail – Qualifying revolving; (i) Retail – Other SME; (j) Retail – Other non – SME; (k) Not applicable 'Not applicable' shall be used where none of the answers in the list is correct which is the case when a counterparty is classified in multiple asset classes, without one being clearly predominant.
040	Rating		The rank of the internal rating grade applied by the institution (from lowest risk to highest risk excluding defaults with PD corresponding to 100%) shall be reported. It shall follow the numerical order 1, 2, 3 etc. Where a counterparty has been assigned multiple rating grades in accordance with Article 172 (1) (e) of Regulation (EU) No 575/2013[1] (CRR), column 040 of template C101.00 of Annex III shall be filled with the rating grade zero (0).

[1] Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (OJ L 176, 27.6.2013, p. 1).

050	Date of most recent rating of counterparty		The date of the most recent rating of the counterparty shall be reported.
060	PD	Column 010 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The PD assigned to the obligor grade or pool that shall be reported shall be based on the provisions laid down in Article 180 of Regulation (EU) No 575/2013. The PD shall be the PD used in the calculation of the RWA, excluding the effect of potential measures introduced in accordance with Article 458 of Regulation (EU) No 575/2013 (‘CRR’). The PD shall be expressed as a value between 0 and 1. All reported risk parameters shall be derived from the risk parameters used in the internal rating system approved by the respective competent authority.
070	Default status		The default status to be reported shall be one of the following: (a) Defaulted: exposures assigned to the rating grade(s) with a PD of 100 %; (b) Non-defaulted: exposures assigned to rating grades with a PD lower than 100%.
080	Original exposure pre-conversion factors	Column 020 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The original exposure value before taking into account any value adjustments, provisions, effects due to credit risk mitigation techniques or conversion factors shall be reported.
090	Exposure after CRM substitution effects pre-conversion factors	Column 090 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The amount to which a conversion factor (‘CCF’) is applied in order to obtain the EAD shall be reported. This shall be done taking into account credit risk mitigation techniques with substitution effects on the exposure.
100	CCF	Second subparagraph of Article 166(8) of Regulation (EU) No 575/2013	The weighted average of the CCFs shall be reported. The weights that shall be used shall be the amounts to which the CCFs are applied in order to obtain the EAD. For counterparties with only facilities for items mentioned in paragraph (8) of Article 166 of the CRR, the weighted average of the CCF shall be based on all the facilities. For counterparties with only facilities which do not fall under the items mentioned in paragraph (8) of Article 166 of the CRR, the weighted average of the CCF shall either be left blank or the indication ‘NULL’ shall be inserted. For counterparties with facilities for i) items mentioned in paragraph (8) of Article 166 of the CRR and ii) items which do not fall under the items mentioned in paragraph (8) of Article 166 of the CRR, the weighted average of the CCF shall be based only on facilities which fall under i) .

			Where the institution applies own estimates of CCFs for the items mentioned in paragraph (8) of Article 166, those CCFs shall be used to calculate the weighted average of the CCFs. Where the institution does not apply own estimates of CCFs for those items mentioned in paragraph (8) of Article 166, the regulatory CCFs shall be used. The CCF shall be expressed as a value between 0 and 1.
110	EAD	Column 110 of template8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The exposure value shall be left blank where the institution has no IRB exposure for a given counterparty.
120	Collateral value	Columns 150 to 210 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The market value of the collateral shall be reported.
130	Hyp LGD senior unsecured without negative pledge	Article 161 of Regulation (EU) No 575/2013	The hypothetical own estimates of loss given default ('LGD') that would be applied by the institution to the counterparty shall be reported in accordance with the following: • The scope of exposures is the same as for the LGD value reported in column 150; • The exposure is senior and unsecured; • No negative pledge clause is in place. A negative pledge clause is a clause stating that the borrower or debt issuer will not pledge any of its assets to another party.
140	Hyp LGD senior unsecured with negative pledge	Article 161 of Regulation (EU) No 575/2013	The hypothetical own estimates of LGD that would be applied by the institution to the counterparty shall be reported in accordance with the following: • The scope of exposures is the same as for the LGD value reported in column 150; • The exposure is senior and unsecured; • A negative pledge clause is in place. A negative pledge clause is a clause stating that the borrower or debt issuer will not pledge any of its assets to another party.
150	LGD	Columns 230 and 240 of template 8.1 of Annex I to Implementing	The EAD-weighted own estimates of LGD or the EAD-weighted regulatory LGD applied by the institution to the exposures to each counterparty shall be reported.

		Regulation (EU) No 680/2014	
160	Maturity	Column 250 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The EAD-weighted maturity for the exposures to each counterparty shall be reported. It shall be expressed in number of days.
170	RWA	Column 260 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The risk-weighted exposure amount after applying the small- and medium-sized enterprise (‘SME’) supporting factor shall be reported.

C 102 – Details on exposures in Low Default Portfolios

For portfolios defined in Annex I with a collateralisation status other than 'Not applicable', the following information may be omitted where the approved model does not accommodate distinct LGD calculations for the secured and unsecured parts of an exposure: LGD (column 130), Expected Loss (column 150) and RWA (column 170).

For portfolios with the regulatory approach defined as “Specialised lending slotting criteria”, the following information may be omitted: PD (c060), LGD (c130)

Column	Label	Legal reference	Instructions
010	Portfolio ID	Column 010 of template 102 of Annex I	The code assigned in column 010 of Template C.102 of Annex I to each portfolio shall be reported. This code is a row identifier and shall be unique for each row in the table. The assignment of exposures to portfolio IDs is not exclusive: Exposures or parts of exposures shall be reported under each portfolio IDs that is applicable.
040	Number of obligors		The number of obligors shall be reported. It shall be based on obligors that have a strictly positive exposure value reported either in column 80 or in column 90. Where a full substitution is applied due to a CRM technique, the original obligor shall be added to the ‘Number of obligors’ of its original portfolio, and the guarantor shall be added to the ‘Number of obligors’ of the guarantor portfolio.
060	PD	Column 010 of table 8.1 of Annex I to Commission Implementing Regulation (EU) No 680/2014	The PD shall be the PD used in the calculation of the RWA, excluding the effect of potential measures introduced in accordance with Article 458 of Regulation (EU) No 575/2013. For portfolios corresponding to an individual grade or pool, the PD assigned to the specific obligor grade or pool shall be reported. For portfolios corresponding to an aggregation of obligors of different grades or pools, the EAD-weighted average of the PDs assigned to the exposures included in the aggregation shall be provided. The PD shall be expressed as a value between 0 and 1.
080	Original exposure pre-conversion factors	Column 020 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The original exposure value before taking into account any value adjustments, provisions, effects due to credit risk mitigation techniques or conversion factors shall be reported.
090	Exposure after CRM substitution effects pre-conversion factors	Column 090 of template 8.1 of Annex I to Implementing	The amount to which a CCF is applied in order to obtain the EAD shall be reported. This shall be done taking into account credit risk mitigation techniques with substitution effects on the exposure.

		Regulation (EU) No 680/2014	
100	CCF	Article 166(8)(e) of Regulation (EU) No 575/2013	The weighted average of the CCFs shall be reported. The weights that shall be used shall be the amounts to which the CCFs are applied in order to obtain the EAD. For portfolios with only facilities for items mentioned in paragraph (8) of Article 166 of the CRR, the weighted average of the CCF shall be based on all the facilities. For portfolios with only facilities which do not fall under the items mentioned in paragraph (8) of Article 166 of the CRR, the weighted average of the CCF shall either be left blank or the indication 'NULL' shall be inserted. For portfolios with facilities for i) items mentioned in paragraph (8) of Article 166 of the CRR and ii) items which do not fall under the items mentioned in paragraph (8) of Article 166 of the CRR, the weighted average of the CCF shall be based only on facilities which fall under i). Where the institution applies own estimates of CCFs for the items mentioned in paragraph (8) of Article 166, those CCFs shall be used to calculate the weighted average of the CCFs. Where the institution does not apply own estimates of CCFs for the items mentioned in paragraph (8) of Article 166, the regulatory CCFs shall be used. The CCF shall be expressed as a value between 0 and 1.
110	EAD	Column 110 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The exposure value shall be reported.
120	Collateral value	Columns 150 to 210 of template8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The market value of the collateral shall be reported.
130	LGD	Columns 230 and 240 of template8.1 of Annex I to Implementing	The EAD-weighted average of the LGD values of the exposures in the respective portfolio shall be reported. Depending on the institution's permission, the LGDs shall be based on the institutions' own estimates or on regulatory values; in either case, the LGDs shall be those used for the calculation of the RWA.

		Regulation (EU) No 680/2014	Exposures and the respective LGDs for large regulated financial sector entities and unregulated financial entities shall be included. The effect of measures introduced in accordance with Article 458 of the CRR shall be excluded. The LGD shall be expressed as a value between 0 and 1.
140	Maturity	Column 250 of template of Annex I to Implementing Regulation (EU) No 680/2014	The EAD-weighted maturity shall be reported. It shall be expressed in number of days. This information shall not be reported for exposures for which the maturity is not an element in the calculation of risk weighted exposure amounts. This information shall not be reported for portfolios that represent exposures of the exposure class ‘Retail’.
150	Expected Loss amount	Column 280 of template8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The expected loss amount shall be reported.
160	Provisions defaulted exposures	Columns 050, 055 and 060 of template 9.2 of Annex I to Implementing Regulation (EU) No 680/2014	The provisions for defaulted exposures shall be reported. These shall include all the general and specific credit risk adjustments for defaulted assets as defined in Article 110 of Regulation (EU) No 575/2013, irrespective of the threshold set for Template C 09.02 of Annex I of Regulation (EU) No 680/2014.
170	RWA	Column 260 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The risk-weighted exposure amount after applying the SME supporting factor shall be reported.
180	RWA Standardised	Part Three, Title II, Chapter 2 of Regulation (EU) No 575/2013.	RWA Standardised is the hypothetical RWA amount obtained by applying the standardised approach for credit risk to the exposures instead of the IRB approach. .

C 103 – Details on exposures in High Default Portfolio

For portfolios defined in Annex I with a collateralisation status different from “Not applicable”, the following information may be omitted where the approved model does not accommodate distinct LGD calculations for the secured and unsecured parts of an exposure: LGD (column 130), Expected Loss (column 150), RWA (column 170), Loss rate latest year (column 210) and Loss rate past 5 years (column 220).

Column	Label	Legal reference	Instructions
010	Portfolio ID		The code assigned in column 010 of Template C.103 of Annex I to each portfolio shall be reported. This code is a row identifier and shall be unique for each row in the table. The assignment of exposures to portfolio IDs is not exclusive: Exposures or parts of exposures shall be reported under each portfolio IDs that is applicable.
040	Number of obligors		The instructions provided for column 040 of C 102 shall apply.
060	PD		The instructions provided for column 060 of C 102 shall apply.
080	Original exposure pre conversion factors		The instructions provided for column 080 of C 102 shall apply.
090	Exposure after CRM substitution effects pre conversion factors		The instructions provided for column 090 of C 102 shall apply.
100	CCF		The instructions provided for column 100 of C 102 shall apply.
110	EAD		The instructions provided for column 110 of C 102 shall apply.
120	Collateral value		The instructions provided for column 120 of C 102 shall apply.
130	LGD		The instructions provided for column 130 of C 102 shall apply.
140	Maturity		The instructions provided for column 140 of C 102 shall apply.
150	Expected Loss amount		The instructions provided for column 150 of C 102 shall apply.
160	Provisions defaulted exposures		The instructions provided for column 160 of C 102 shall apply.
170	RWA		The instructions provided for column 170 of C 102 shall apply.
180	RWA Standardised		The instructions provided for column 180 of C 102 shall apply.
190	Default rate latest year		The default rate for the latest year shall be reported. For this purpose the default rate shall be defined as the ratio between i) the sum of the exposures (original exposure before applying the conversion factor measured at the reference date minus one year) that were non-defaulted exactly one year before the reference date and defaulted between the reference

			date minus one year and the reference date and ii) the sum of the exposures (original exposure before applying the conversion factor measured at the reference date minus one year) that were non-defaulted at the reference date minus one year. New exposures that were generated during the year preceding the reference date shall not be included. Exposures that defaulted and were cured again during the year preceding the reference date shall be included in both the numerator and the denominator. Multiple defaults of the same obligor shall be included only once. This information shall be reported for portfolio IDs relating to non-defaulted exposures only.
200	Default rate past 5 years		The weighted average of the default rates observed in the last five years preceding the reference date shall be reported. The default rate definition referred to in column 190 shall apply. The weights to be used are the non-defaulted exposures used in the calculation of the default rate in accordance with column 190. Where the institution is not able to calculate a default rate for the past five years preceding the reference date, the institution shall develop a proxy using its longest history up to five years preceding the reference date and provide the documentation detailing the calculation to its competent authority. This information shall be reported for portfolio IDs relating to "non-defaulted" exposures only.
210	Loss rate latest year		The loss rate observed in the latest year shall be reported for portfolio IDs relating to 'non-defaulted' and 'defaulted' exposures only. For non-defaulted portfolios, the loss rate shall be the sum of credit risk adjustments and write-offs applied, within the year preceding the reference date, to exposures that were non-defaulted exactly one year before the reference date and which defaulted during the year preceding the reference date, divided by the sum of the EAD, measured exactly one year before the reference date, of the exposures that were non-defaulted exactly one year before the reference date and which defaulted during the year preceding the reference date. The numerator of the loss rate shall incorporate all the credit risk adjustments and write-offs related to the exposures that defaulted within the year preceding the reference, including the credit risk adjustments applied before the default date. New exposures generated during the year preceding the reference date shall not be included. Exposures that defaulted and were cured again during the year preceding the reference date shall be included in the denominator of the loss rate and credit risk adjustments and write-offs on those exposures shall be considered in the numerator of the loss rate. Multiple defaults of the very same obligor shall be considered only once. For defaulted portfolios, the loss rate shall be the sum of (i) credit risk adjustments to exposures that were already in default exactly one year before the reference date in the respective portfolio and (ii) credit risk adjustments and write-offs applied within the year preceding the reference date for these exposures, divided by the sum of the EAD, measured exactly one year before the reference date, of the exposures that were defaulted exactly one year before the reference date.

			New defaults during the year preceding the reference date shall not be included. Exposures that cured again during the year preceding the reference date shall be included in the denominator of the loss rate and credit risk adjustments and write-offs on those exposures shall be included in the numerator of the loss rate. Multiple defaults of the very same obligor shall be included only once.
220	Loss rate past 5 years		The EAD-weighted average of the loss rates observed in the last five years preceding the reference date shall be reported for portfolio IDs relating to ‘non-defaulted’ and ‘defaulted’ exposures only. The definition of loss rate referred to in column 210 shall apply. The loss ratio of past five years shall not include changes in credit risk adjustments and write offs that occur after the first year of default. Where the institution is not able to calculate a loss rate for the past five years it shall develop a proxy using its longest history up to 5 years and provide documentation detailing the calculation to its competent authority.
250	RWA-		Institutions shall calculate and report RWA- for portfolios are defined in Annex I, template 103 with the following portfolio ID: CORP_ALL_0086_CT_****_**_***_ALL SMEC_ALL_0106_CT_****_**_ ***_ALL MORT_ALL_0094_CT_****_**_ ***_ALL SMOT_ALL_0106_CT_****_**_***_ALL RSMS_ALL_0106_CT_****_**_***_ALL RETO_ALL_0094_CT_****_**_***_ALL RQRR_ALL_0094_CT_****_**_***_ALL RWA- shall be the hypothetical risk-weighted exposure amount, after applying the SME supporting factor, which results from the application of the PD- values instead of the institution’s PD values, for each exposure. The remaining parameters needed in the computation shall not be subject to changes. PD- shall be based on a calculation performed separately for each obligor grade. The obligor grades as reported in column 005 of Template C 08.02 of Annex I of Regulation (EU) No 680/2014 (cf. Q&A 2016_2782) shall be used (see Annex II of Regulation (EU) No 680/2014, C 08.01 column 010 and C 08.02 for instructions). For each obligor grade, p^{-} shall be the smallest positive value satisfying the equation $$p^{-} + \Phi^{-1}(q) \cdot \sqrt{\frac{p^{-} \cdot (1-p^{-})}{n}} \geq DR_{1y} \text{ where } DR_{1y} > 0$$

			and $p^{-} = 0$ where $DR_{1y} = 0$ where, Φ^{-1} = the inverse function of the standard normal (cumulative) distribution; q = the confidence level set at 90%; DR_{1y} = the case weighted default rate of the year preceding the reference date, i.e., the number of obligors that were not in default and assigned the obligor grade under consideration exactly one year before the reference date and which defaulted during the latest year, divided by the number of obligors that were not in default and assigned the obligor grade under consideration exactly one year before the reference date; n = the number of obligors that were not in default and assigned the obligor grade under consideration exactly one year before the references date. For each obligor, PD- shall be equal to p^{-}, where p^{-} shall be calculated in accordance with the above formula for the obligor grade assigned to the obligor.
260	RWA+		Institutions shall calculate and report RWA+ for the portfolios are defined in Annex I, template 103 with the following portfolio ID: CORP_ALL_0086_CT_****_**_***_ALL SMEC_ALL_0106_CT_****_**_***_ALL MORT_ALL_0094_CT_****_**_***_ALL SMOT_ALL_0106_CT_****_**_***_ALL RSMS_ALL_0106_CT_****_**_***_ALL RETO_ALL_0094_CT_****_**_***_ALL RQRR_ALL_0094_CT_****_**_***_ALL RWA+ shall be the hypothetical risk-weighted exposure amount, after applying the SME supporting factor, which results from the application of the PD+ values instead of the institution's PD values, for each exposure. The remaining parameters needed in the computation shall not be subject to changes. PD+ shall be based on a calculation performed separately for each obligor grade. The obligor grades as reported in column 005 of Template C 08.02 of Annex I of Regulation (EU) No 680/2014 (cf. Q&A 2016_2782) shall be used (see Annex II of Regulation (EU) No 680/2014, C 08.01 column 010 and C 08.02 for instructions). For each obligor grade, p^{+} shall be the largest positive value satisfying the equation $$p^{+} - \Phi^{-1}(q) \cdot \sqrt{\frac{p^{+} \cdot (1 - p^{+})}{n}} \leq DR_{1y}$$

			In this equation, Φ^{-1} = the inverse function of the standard normal (cumulative) distribution; q = the confidence level set at 90%; DR_{1y} = the case weighted default rate of the year preceding the reference date, i.e., the number of obligors that were not in default and assigned the obligor grade under consideration exactly one year before the reference date and which defaulted during the latest year, divided by the number of obligors that were not in default and assigned the obligor grade under consideration exactly one year before the reference date; n = the number of obligors that were not in default and assigned the obligor grade under consideration exactly one year before the references date. For each obligor, PD+ shall be equal to p^{+}, where p^{+} shall be calculated in accordance with the above formula for the obligor grade assigned to the obligor.
270	RWA--		Institutions shall calculate and report RWA—for the portfolios are defined in Annex I, template 103 with the following portfolio ID: CORP_ALL_0086_CT_****_**_***_ALL SMEC_ALL_0106_CT_****_**_***_ALL MORT_ALL_0094_CT_****_**_***_ALL SMOT_ALL_0106_CT_****_**_***_ALL RSMS_ALL_0106_CT_****_**_***_ALL RETO_ALL_0094_CT_****_**_***_ALL RQRR_ALL_0094_CT_****_**_***_ALL RWA-- shall be the hypothetical risk-weighted exposure amount, after applying the SME supporting factor, which results from the application of the PD-- values instead of the institution's PD values, for each exposure. The remaining parameters needed in the computation shall not be subject to changes. PD-- shall be based on a calculation performed separately for each obligor grade. The obligor grades as reported in column 005 of Template C 08.02 of Annex I of Regulation (EU) No 680/2014 (cf. Q&A 2016_2782) shall be used (see Annex II of Regulation (EU) No 680/2014, C 08.01 column 010 and C 08.02 for instructions). For each obligor grade, p^{--} shall be the smallest positive value satisfying the equation $$p^{--} + \Phi^{-1}(q) \cdot \sqrt{\frac{p^{--} \cdot (1 - p^{--})}{n}} \geq DR_{5y} \text{ where } DR_{5y} > 0$$

			and $p^{-} := 0$ where $DR_{5y} = 0$, where, Φ^{-1} = the inverse function of the standard normal (cumulative) distribution; q = the confidence level set at 90%; DR_{5y} = the default rate of the 5 latest years for the obligor grade, calculated as the simple average of five 1-year case-weighted default rates; n = the number of obligors that were not in default and assigned the obligor grade under consideration exactly one year before the references date. For each obligor, PD-- shall be equal to p^{--}, where p^{--} shall be calculated in accordance with the above formula for the obligor grade assigned to the obligor.
280	RWA++		Institutions shall calculate and report RWA++ for the portfolios defined in Annex I, template 103 with the following portfolio ID: CORP_ALL_0086_CT_****_**_***_ALL SMEC_ALL_0106_CT_****_**_***_ALL MORT_ALL_0094_CT_****_**_***_ALL SMOT_ALL_0106_CT_****_**_***_ALL RSMS_ALL_0106_CT_****_**_***_ALL RETO_ALL_0094_CT_****_**_***_ALL RQRR_ALL_0094_CT_****_**_***_ALL RWA++ shall be the hypothetical risk-weighted exposure amount, after applying the SME supporting factor, which results from the application of the PD++ values instead of the institution's PD values, for each exposure. The remaining parameters needed in the computation shall not be subject to changes. PD++ shall be based on a calculation performed separately for each obligor grade. The obligor grades as reported in column 005 of Template C 08.02 of Annex I of Regulation (EU) No 680/2014 (cf. Q&A 2016_2782) shall be used (see Annex II of Regulation (EU) No 680/2014, C 08.01 column 010 and C 08.02 for instructions). For each obligor grade, p^{++} shall be the largest positive value satisfying the equation $$p^{++} - \Phi^{-1}(q) \cdot \sqrt{\frac{p^{++} \cdot (1 - p^{++})}{n}} \leq DR_{5y}$$ where,

			Φ^{-1} = the inverse function of the standard normal (cumulative) distribution; q = the confidence level set at 90%; DR_{5y} = the default rate of the 5 latest years for the obligor grade, calculated as the simple average of five 1-year case-weighted default rates; n = the number of obligors that were not in default and assigned the obligor grade under consideration exactly one year before the references date. For each obligor, PD++ shall be equal to p^{++}, where p^{++} shall be calculated in accordance with the above formula for the obligor grade assigned to the obligor.

C 105.01 – Definition of internal models

Column	Label	Legal reference	Instructions
010	Internal model ID		The internal model ID assigned by the reporting institution shall be reported. This internal model ID is a row identifier that shall be unique for each row in the table.
020	Model name		The model name assigned by the reporting institution shall be reported.
030	IRBA Risk parameter		The IRB approach risk parameter shall be one of the following: (a) PD; (b) LGD; (c) CCF.
040	EAD	Column 110 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The aggregate exposure value of the transactions in the scope of application of the specific model shall be reported.
050	EAD weighted average default rate for calibration		The EAD-weighted average of the annual default rates, where used in the calibration of the PD models, shall be reported. This information shall be completed only for PD models. The data used in the calibration of the model parameters shall be used. If no internal data exists and the calibration is based on external data, then the external data shall be reported.
060	Case weighted average default rate for calibration		The simple average of the annual case-weighted default rates used in the calibration of the PD models shall be reported. This information shall be completed only for PD models. The data used in the calibration of the model parameters shall be used. If no internal data exists and the calibration is based on external data, then the external data shall be reported.
070	Long-run PD		The central tendency used by the institution in the calibration of the models that incorporates any prudent adjustment to the simple case weighted average of the annual default rates used in the calibration of the PD models shall be reported. This information shall be completed only for PD models.
080	Cure rate defaulted asset		The cure rate defaulted asset shall be the percentage of defaulted outstanding that returns in ‘non-defaulted’ status over a 12 months period. An institution that does not calculate cure rates for a given model shall calculate a proxy for cure rates, in accordance with the definition provided. The institution shall report the use of a proxy to the competent authority. This information shall be completed only for LGD models.
090	Recovery rate not cured foreclosed assets		The case-weighted average recovery rate for not cured defaults included in the time series used by the institution for the calibration of the LGD models on non-defaulted assets shall be reported.

			The data used in the calibration of the model parameters shall be used. If no internal data exists and the calibration is based on external data, then the external data shall be reported. An institution that does not have a specific recovery rate for non-cured defaults due to an incomplete recovery procedure, shall calculate a proxy taking into account observed recoveries as well as the estimations of recoveries for incomplete workout . The institution shall report the use of a proxy to the competent authority. This information shall be completed only for LGD models.
100	Recovery period length not cured foreclosed assets		The case-weighted average length of the recovery period (from the start of the default status to the completion date of the recovery procedures) for the not cured defaults included in the time series used by the institution for the calibration of the LGD models on non-defaulted assets shall be reported. It shall be expressed in number of days. The data used in the calibration of the model parameters shall be used. If no internal data exists and the calibration is based on external data, then the external data shall be reported. An institution that does not have a specific recovery period length for not cured defaults, due to an incomplete recovery procedure, shall calculate a proxy taking into account the definition provided. The institution shall report the use of a proxy to the competent authority. This information shall be completed only for LGD models.
110	Joint decision	Article 20(2)(a) of Regulation (EU) No 575/2013	The institution shall report whether or not a joint decision on prudential requirements does exist between the consolidating and the host competent authority regarding the permission to use the IRB approach for the calculation of the prudential requirements for the exposures held by the subsidiaries of the institutions in the reported benchmarking portfolios.
120	Consolidating supervisor	Article 20 of Regulation (EU) No 575/2013	The country ISO code of the country of origin of the competent authority responsible for the consolidated supervision of the institution using an IRB approach shall be reported.
130	RWA	Column 260 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The risk-weighted exposure amount after applying the SME supporting factor for all transactions in the scope of application of the specific model shall be reported.

C 105.02 – Mapping of internal models to portfolios

Column	Label	Legal reference	Instructions
010	Portfolio ID	Column 010 of templates 102 and 103	The code assigned to the portfolio in accordance with annex II for which the institution reports the results of the calculation shall be reported. Columns 010 and 020 are a composite row identifier and together shall be unique for each row in the table.
020	Internal model ID	Column 010 of template 105.01	The internal model ID assigned by the reporting institution shall be reported.

030	EAD	Column 110 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The exposure value of the transactions in the scope of application of the specific model in accordance with column 020 for the specific portfolio in accordance with column 010 shall be reported. Where all transactions of a given portfolio are treated with one specific model, the exposure value shall be identical to the amount reported for the same portfolio in column 110 of template 102 or 103, as applicable.
040	RWA	Column 260 of template 8.1 of Annex I to Implementing Regulation (EU) No 680/2014	The risk-weighted exposure amount after applying the SME supporting factor for the transactions in the scope of application of the specific model, in accordance with column 020, for the specific portfolio in accordance with column 010, shall be reported. Where all transactions of a given portfolio are treated with one specific model, the amount shall be identical to the amount reported for the same portfolio in column 170 of template 102 or 103, as applicable.

C 105.03 – Mapping of internal models to countries

Column	Label	Legal reference	Instructions
005	Row ID		This code is a row identifier and shall be unique for each row in the template. It shall follow the numerical order 1, 2, 3, etc.
010	Internal model ID	Column 010 of template 105.01	The internal model ID assigned by the reporting institution shall be reported. Where one internal model ID is associated with several countries, separate rows shall be reported for each combination of 'Internal model ID' and 'Location of institution'. Columns 010 and 020 are a composite row identifier and their combination shall be unique for each row in the table.
020	Location of institution	Article 20 of Regulation (EU) No 575/2013	The country ISO code of the legal residence of each subsidiary where the IRB exposures reported for each benchmarking portfolio are booked shall be reported, irrespective of the existence of any permission granted by the host supervisor to apply an IRB approach.