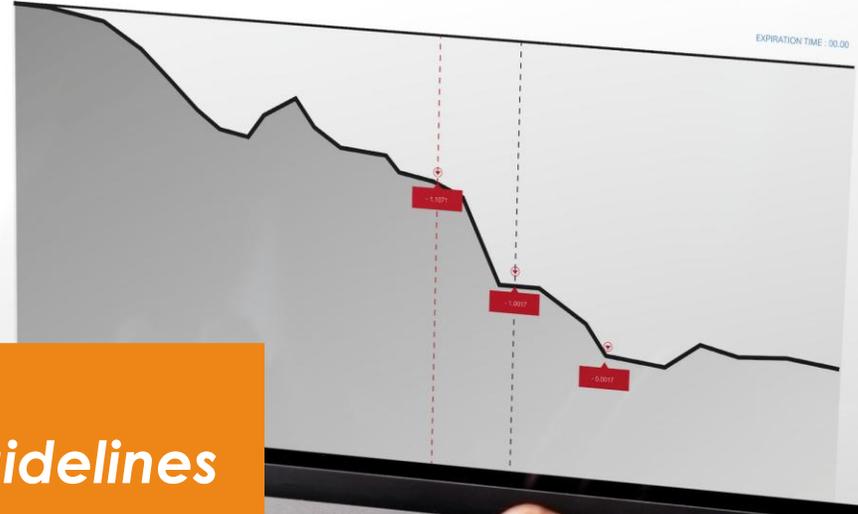


Just in Time

RISK 



**Draft Guidelines
on Credit Conversion Factor Estimation**

March 2026



Executive Summary

- The draft Guidelines specify the **methodology for estimating and applying Credit Conversion Factors (CCF) within the IRB approach**, continuing the IRB repair programme and **ensuring consistency with PD and LGD modelling**.
- They establish **detailed requirements on:**
 - **Scope** and **level** of **Application**
 - Use of **Fixed CCF**
 - Data **Representativeness**
 - Treatment for changes in **customer product mix**
 - Calculation of **realised CCF**
 - **Estimation** of CCF:
 - Use of **fixed reference date**
 - **Multiple default** treatment
 - Treatment for the **region of Instability**
 - Treatment of **Incomplete Cases**
 - **Risk Quantification**
 - Estimation of **CCF in-default**
 - **Downturn** Estimation



At a Glance

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Keywords: CCF, Guidelines, Default, Estimation, Exposures



01

Introduction



Introduction

Following the implementation of [Regulation \(EU\) 2024/1623 \(CRR3\)](#), the EBA has launched a Consultation on new Guidelines that specify the methodology for estimating the **Internal Ratings Based Credit Conversion Factor (IRB-CCF)**.



This initiative acts as a natural extension of the **IRB repair programme**, aiming to **harmonize modeling practices** and **ensure consistency** with existing standards for Probability of Default (PD) and Loss Given Default (LGD).



While the framework mirrors the **rigorous architecture of PD and LGD guidelines** including standards for data governance, the Margin of Conservatism (MoC), and downturn estimation it also acknowledges the **lower materiality of the CCF parameter**.



Consequently, a **simplified approach** has been introduced for specific areas, such as unresolved defaults and data representativeness, to **maintain proportionality while mitigating underestimation risk**.

This document is based on the Consultation Paper and will be updated as soon as the final Guidelines will be published.

02

Guidelines on CCF Estimation

Scope of Application
Fixed CCF
Level of Application: Single Facility
Development, Testing and Quantification Sample
Data Representativeness
Changes in Customer Product Mix

Fixed Reference Date
Multiple Default Treatment
Calculation of Realised CCF
Region of Instability
Treatment of Incomplete Cases
Risk Quantification
CCF in-default
Downturn Estimation



Guidelines on CCF Estimation 1/14

Scope of Application

The guidelines specify the scope of **application of the IRB-CCF** defined by Article 166(8b) CRR: “exposures arising from undrawn revolving commitments treated under the IRB Approach”.

1 Contractual arrangements with advised and unadvised limits

- All **revolving commitments** with advised or unadvised limits, including cancellable or not yet accepted arrangements, are within the IRB-CCF scope.
- If the **unadvised limit** is higher than the advised limit, it should be considered in the CCF estimate.
- **Internally defined limits** not accessible to the obligor are not considered unadvised limits.
- **Commitments without explicit limits** are excluded from the IRB-CCF scope, but any losses on such accounts should be investigated.

2 Revolving nature of commitments

- **Overdrafts** on current accounts with an advised limit.
- Commitments where the obligor has the flexibility to decide how often to withdraw from the loan and at what time intervals but where the outstanding balance is scheduled to be repaid in full on fixed due dates on an interval base (**e.g. credit cards or deferred debit cards**).
- **Commitments that include contractual fees or (higher) interest rates** pertaining to the drawing and repayment of the commitment.
- **Commitments that include a duration** after which the revolving commitment matures, or the revolving nature of the commitment expires.

3 Fully drawn commitments

- **Fully drawn commitments** must also be subject to IRB-CCF estimation.
- **All drawings**, including those exceeding the formal limit, must be included **without a 100% cap**.
- The CCF calculation considers **the higher of advised and unadvised limits**.

Guidelines on CCF Estimation 2/14

Fixed CCF

Prior supervisory approval is required for the IRB Approach, including **own LGD and IRB-CCF estimates**, per exposure class and rating system. If **IRB-CCF minimum requirements are not met**, the **Foundation IRB LGD** must be applied also if the bank is able to obtain robust estimates for LGD. In order to avoid this situation, a **minimum fixed IRB-CCF** has been introduced.



Condition for use Fixed - CCF

The institution may resort to a **Fixed CCF approach** (typically set at or above 100%) when it can demonstrate that an IRB-CCF cannot be reliably estimated. This occurs **under the following circumstances**:

- **Data Scarcity:** Revolving exposures are immaterial or lack sufficient default observations to build a reliable model.
- **Weak Predictive Power:** The model lacks discriminatory power (e.g., low AUC) or shows counterintuitive relationships between risk drivers and drawing behavior.
- **Excessive burden:** Estimating CCF at the facility level rather than the obligor level creates technical complexities unsupported by available data.



Usage requirements and modality

Institutions may apply a sufficient **Margin of Conservatism (MoC)** to their CCF estimates so that the final value is at least 100%. This modality is strictly subject to the following three conditions:

- **Proven Data Gap:** The institution must explicitly demonstrate the lack of historical data before opting for this simplified approach.
- **Sufficient Conservatism:** The defined MoC must be high enough to ensure the final estimate is conservative. Consequently, the final CCF for these facilities may frequently be higher than 100%.
- **Mandatory Back-testing:** The fixed CCF approach is not exempt from validation; it is subject to rigorous back-testing requirements to prove that the estimate remains sufficiently conservative over time.

Guidelines on CCF Estimation 3/14

Level of Application: Single Facility

Institutions should **estimate** and **apply the CCF estimate** at the level of a **single facility**. According to Article 4(1)(56) of **CRR3**, a **realised CCF should be calculated for an undrawn revolving commitment from a single facility**.

01

Where an institution has an OBS exposure towards one single obligor stemming from different facilities to that obligor, **a separate realised CCF should be calculated for each facility**.

This is confirmed by Article 182(1b)(b) CRR, which specifies that it **is not appropriate to use obligor-level** estimates that do not fully cover the relevant product transformation options or that inappropriately combine products with very different characteristics.

02

CRR3 introduces a definition of facility which includes some flexibility, namely whether a facility is defined at the level of **a single contract** or at a **set of contracts**.

The determination of the **set of contracts** constituting a single facility **should be aligned between the estimation of the CCF and the risk management practices**.

At the same time, **the institution should be able to demonstrate when there is a structure that interconnects these contracts**, and when contracts **are not** connected.

03

Where there are **several revolving limits** that arise from the same contract or set of related contracts, one single realised **CCF should be calculated for the combined OBS exposure related to these revolving limits**.

Contracts that specify individual (sub)limits could be considered as a single facility when there exists **an overarching agreement (e.g. an umbrella facility) that specifies a debt ceiling or overarching limit up** to which the obligor is authorised to draw, connecting these contracts and (potentially restricting) their individual sub-limits.

Such agreements can be considered to constitute a single facility as long as they **do not combine contracts with very different characteristics**.

04

For the purpose of application, there is also the need **for a disaggregation within a particular facility**, when the set of contracts contains contracts eligible for an IRB-CCF and contracts that are not eligible for an IRB-CCF.

Institutions should **not apply the CCF parameter** to the exposures that **are not in scope of the IRB-CCF**, even if such an exposure is part of the same facility as the revolving commitment.

Within a single facility, institutions should therefore calculate a **realised CCF for the part that is undrawn and related to a revolving commitment**.

Guidelines on CCF Estimation 4/14

Development, Testing and Quantification Sample

Institutions must ensure that the **Reference Data Set (RDS)** contains complete information on all defaulted facilities observed during the **historical observation period**. In accordance with **Regulation (EU) No 575/2013 - Article 182**, the RDS must store all data necessary for calculating **realized CCFs** and identifying **potential risk drivers**. To support the different **modelling stages**, institutions should adopt specific **naming conventions**, partitioning the data into the **Development Sample**, **Testing Data**, and **Quantification Sample**.



Risk Differentiation

Development Sample

This sample is used for the development of the model and contains potential risk drivers that effectively differentiate the drawing behavior of obligors, including:

- **Transaction-related characteristics** containing type of product, exposure size, utilization rates, limit amount, drawing and repayment characteristics;
- **Obligor-related risk characteristics** containing capital structure, geographical region, industrial sector, line of business, and behavioral information, including delinquency and the use of credit facilities;
- **Institution-related factors** containing internal organization and internal governance, monitoring and repayment processes, authorization processes related to unadvised limits;
- **External factors** containing legal environment and indicators of transition and physical climate risks.



Model Performance

Testing Data

This sample is used for testing the model performance of the Risk Differentiation model and contains data to assess the model's stability and predictive power. It includes:

- **Out-of-sample (OOS) and out-of-time (OTS) data** containing observations not used during model estimation to evaluate the performance of the model across different time periods;
- **Calibration segment sub-samples** containing data to verify the model's ability to discriminate riskier facilities at all relevant levels (i.e., both on the final rankings as well as on the intermediate steps of the model) and for each calibration segment;
- **Grade-level distributions** containing the population facilities assigned to the same grades or pools to assess homogeneity with respect to their conversion risk.



Risk Quantification

Quantification Sample

This sample is used for the risk quantification stage and contains the comprehensive set of historical observations and facility characteristics required for CCF estimation:

- **Default history** containing all observed defaults within the historical observation period;
- **Default trigger and timing data** containing the specific dates of default and reference dates, along with all recorded default triggers;
- **Exposure and commitment details**, including the drawn amounts and the nature of the commitment (advised and unadvised limits) at the relevant reference dates;
- **Post-default drawing records** containing the amounts and timing of additional drawings after the moment of default.

Guidelines on CCF Estimation 5/14

Data Representativeness

The requirements on representativeness are simplified for CCF in comparison to the GL PD and LGD and were drafted to mitigate the model risks related to where representativeness of the data is not met.

A general framework to assess the representativeness of these three samples has been introduced

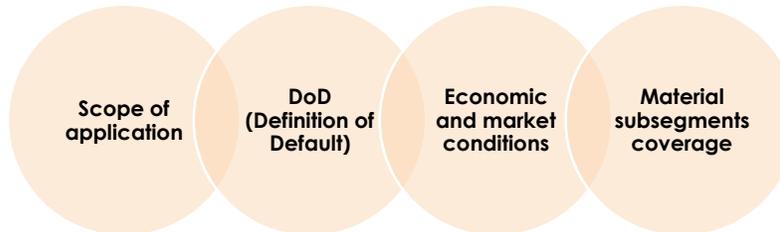
- 1** Model performance (discriminatory power) is producing a bad score
The representativeness requirements to develop the model are subordinate to the “actual performance of the model” and are therefore **relaxed in comparison to the GL PD and LGD**: if the **model performance is still appropriate**, it is **not required to select a different development sample or make adjustments**; however, if the **model performance is weak**, the institution should **consider redeveloping the model**, after making adjustments in the development approach.
- 2** The data used to test the model is not representative of the application portfolio
The representativeness requirements on the data to test the model performance are still in place: in the case of an observed **lack of representativeness**, institutions should either “**make adjustments to the data**” or “**select a different testing sample**”, as the test results may be skewed or biased.
- 3** The data used to quantify the estimates at the level of estimation is not representative
For the ‘**quantification sample**’, it is important to ensure representativeness of the data used for the calculation of estimates; **institutions should make “appropriate adjustments”** and incorporate a “**margin of conservatism (MoC)**” in case they observe a **lack of representativeness**.

Availability of historical data

Subsegment of the application portfolio not covered by the RDS:
where the institution **does not have sufficient default observations** to **test the performance of the model on this subsegment**, institutions are allowed to apply the guidance on the **minimum value of 100% CCF**.

Expected future changes in the structure of the application portfolio
Where risk characteristics are not yet reflected in historic data, two weaknesses arise — “**weakness in discriminatory power**” and “**weaknesses in homogeneity**”. Institutions should make positive **adjustments** and apply a **corresponding MoC**; human judgment may be used in parameter application.

Dimensions of Representativeness



Guidelines on CCF Estimation 6/14

Changes in Customer Product Mix

The **CRR** requires **institutions** to consider for the **CCF estimation the restructuring and transformation of facilities** and shall demonstrate to the **competent authorities** that they have a detailed **understanding** of the **impact of changes in customer product mix on the exposures in the RDS** and the associated IRB-CCF, and that the **impact is immaterial** or has been **effectively mitigated within their estimation process**.

The institutions should identify all cases where there has been a **change in the obligors' mix of borrowing and other credit-related products (customer product profile)**, including the **restructuring of contracts between reference and default dates**, and identify those contracts **replacing the contracts at the reference date**.

This identification is necessary to ensure **no downward bias is introduced to CCF estimates**, either by artificially splitting one facility into two facilities with lower realised CCF, or by changing a revolving commitment into a term loan before the default.

As a general rule, the **grouping of contracts in a single facility** should follow a **consistent policy as the one put in place in the application of the CCF parameter**.

Furthermore, in this context of identification of related contracts impacted by a change in customer product profile, the EBA expects institutions to justify if there are changes in the customer product mix 12 months before the default date that they do not consider as related.

Specifically for the **following cases** or restructurings where one or more facilities of an obligor have been (partially) closed or repaid and where one or more facilities have been originated for the same debtor within a short period of time, it is deemed likely that the facilities are related.

- a. Cases associated with **performing forbearance measures**, in line with the institution's policies for identifying performing exposures to which forbearance measures have been granted;
- b. Cases associated with **a distressed restructuring**, i.e. where the default is triggered due to the restructuring of one or more facilities;
- c. Cases **without a decrease in the overall drawn amount at the moment of the change in the customer product profile**;
- d. Cases that **occurred shortly before the default date**;
- e. Cases where **the drawing of the commitments of the (partially) closed or repaid facility before the change was fully drawn or close to fully drawn**.

Guidelines on CCF Estimation 7/14

Fixed Reference Date

In accordance with **Art.182(1) CRR3**, institutions must use a fixed-horizon approach for CCF estimation. Every default event must be linked to the obligor and facility characteristics observed exactly **12 months prior to the date of default**.



Fast Defaults

⏪ Retracting Mechanism

Facilities defaulting within 12 months of origination ("fast defaults") have no eligible reference date at T-12M. **Institutions** must retract the reference date to **the earliest date within the 12-month window prior to default** at which the facility meets the eligibility conditions. If no such date exists, the facility must be excluded from the RDS.

Bias and Adjustments ⚠

The inclusion of "**fast defaults**" in the RDS must be monitored for **potential bias**. Institutions must evaluate the need for an appropriate adjustment and a related Margin of Conservatism based on:

- **Model Differentiation:** The ability of the CCF model to distinguish "fast" defaults from standard observations using appropriate risk drivers;
- **Portfolio Composition:** The materiality of facilities with maturities shorter than one year, which exclusively produce defaults that did not exist 12 months prior to the default date.

Guidelines on CCF Estimation 8/14

Multiple Default Treatment

The **multiple default treatment** has been introduced for LGD and CCF estimation to merge events occurring shortly after each other, preventing the loss from biasing downwards. This implies that multiple default events of the same facility should be merged if they occur within a "**dependence period**" specified by the institution. These GL prescribe that **the minimum length of this dependence period is nine months** allowing consistency between LGD and CCF.



Key implications for Merged Default

- **Default & Reference Dates:** The **date of default** is the **date of the first event**, while the **reference** is **12 months before the default date**.
- **Exit Date:** The potential exit date of the merged default is the **exit date of the last default event**.
- **Additional drawing:** for exposures for which **additional drawings** after default are **included**, additional drawings between the start date of the first default and the exit date of the last default should be considered, including those **drawings that occur between the exit date of the nth default and the start date of the (n+1)th default**.

Case A: Reflecting future drawings

For **non-retail exposures and retail exposures** where an institution reflects future drawings in their CCF estimates. These are understood as **additional drawings** by the obligor after the moment of default.



it can be expected that the **outstanding amount** of a revolving facility will **increase** such that it is generally **prudent to merge these multiple defaults**.

Case B: Excluding future drawings

The case of **retail estimates** where an institution has opted **not to take into account additional drawings** after default.



where additional drawings after default are not taken into account, for the CCF estimation, the **conservatism** of the multiple default treatment is **dependent** on the **drawing behaviour on the two defaults**.

Rationale for Multiple Default Treatment

This approach aligns with the use of probation periods to identify early financial difficulties after repayment resumes. Additional drawings between two defaults may indicate weaknesses in identifying the obligor's distress; such drawings must be modeled appropriately as they increase the institution's exposure and affect the final loss.



Guidelines on CCF Estimation 9/14

Calculation of Realised CCF



Calculation of realised CCF for the customer product profile

One facility may be comprised of **several revolving commitments**, or of a **combination of revolving and non-revolving commitments**. As such, the GL are based on the following **three principles**:

1. **Two revolving contracts in the same facility should be treated as one single revolving contract.**
2. **There should be consistency between the application and estimation at reference date.**
3. **The CCF estimates should not be biased by the payment behaviour of term loans.**

For those **contracts replacing other contracts**, institutions should develop an **appropriate methodology for the allocation of drawings and repayments to the original contracts** constituting the facilities already available at the reference date.

The **institutions should demonstrate** that the process of allocation of drawings and repayments **is effective and does not lead to biased CCF estimates**.



Additional drawings after default

These **additional drawings** should be calculated as the **difference between the exposure at default, and the maximum of the drawn amounts in default, discounted back to the default date, over the observed defaulted period**.

$$\text{Additional drawn amount} = \max_{t \in [0:T]} \left(DA_t * \frac{1}{(1+r)^t} \right) - DA_{t=0}$$

Where:

- DA_t is the drawn amount at time t ,
- $t = 0$ at the default date
- $t = T$ at the end of the default of the facility

This approach avoids calculating **very high realised CCFs and very low realised LGDs without a business meaning**. However, **institutions should ensure that they are consistent** in applying this approach for the calculation of the **realised CCF** and the calculation of the **denominator used for the realised LGD**.

Guidelines on CCF Estimation 10/14

Region of Instability

In accordance with Article 182(1a) CRR, **institutions must shield CCF estimates from the potential effects of the Region of Instability (RoI)**. This instability occurs when a facility is close to being fully drawn at the reference date. To prevent distortions, institutions must identify and appropriately differentiate RoI exposures from other risk grades or pools.



Principles related to the calculation of realized CCFs and estimation of CCFs

Segregation & Validation

Institutions must differentiate **RoI facilities** to quarantine **CCF estimates** from instability effects. Model adequacy must be tested by measuring predictive power for both CCF and final exposure value estimates.

Alternative realised CCF

For facilities identified within the RoI, institutions are allowed to deviate from the standard definition and use an **alternative realised CCF calculation**, subject to specific conditions.

Estimation of the alternative realised CCF

Requirements are prescribed on how to calculate under this **alternative approach** the realised exposure amount at default

- **Trigger for Alternative Approach:** used when **standard CCF estimation is infeasible** or leads to **outcomes that do not reflect economic reality** due to extreme dispersion.
- **Mitigating Instability:** prevents "**counter-intuitive**" results (e.g., CCF > 1000%) caused by small denominators (undrawn limits near zero) when fees or limit increases occur.
- **Threshold Identification:** Facilities in the RoI are **identified** through an **utilization rate threshold** (ratio of total drawn to limit) defined by internal policy and based on dispersion measures like variance.
- **Objective & Dispersion Control:** The goal is to **quarantine RoI** outliers while **minimizing** the number of **outliers** and **ensuring a manageable dispersion of realized CCF below the threshold**.
- **Harmonization Goal:** Institutions should apply a **single approach** to enhance the comparability, benchmarking, and consistency of **CCF estimates** across the industry.
- **Prescribed Methodology:** The **realized exposure** at default for RoI facilities is calculated as the **drawn amount at default** expressed as a **percentage of the limit at the reference date**.
- **Mandatory Use for Fully Drawn Facilities:** This alternative definition must be used **for all facilities that are fully drawn at the reference date**, as the standard CCF denominator would otherwise be undefined.
- **Consistent Application:** Once the alternative CCF is estimated, it must be **applied consistently to all facilities identified within the RoI** at the application date.

Guidelines on CCF Estimation 11/14

Treatment of Incomplete Cases

Treatment of Incomplete Cases:

to obtain an adequate LRA CCF, "observed average CCF" from closed cases must be adjusted for unresolved defaults using either a **simple approach** (non-retail only) or a **modelling approach**.

Simple Approach

- **Rationale:** The **simple approach** is allowed when **estimating** future drawings for unresolved cases is **disproportionately burdensome** relative to the low materiality of expected additional drawings.
- **Core Methodology:** Realised CCF for unresolved defaults is calculated by assuming **no further drawings will occur after the estimation date**.
- **Conservatism Rule:** To ensure prudence, these estimates **contribute** to the **LRA CCF** only **if they are not lower than the LRA CCF calculated on resolved cases** for that specific grade or pool.
- **Eligibility - Statistical Evidence:** Institutions may use this approach if they demonstrate **low materiality** in terms of the number of facilities and total outstanding amount of unresolved defaults with positive undrawn balances.
- **Eligibility - Policy Evidence:** Alternatively, institutions can prove that **internal risk management policies** effectively **restrict additional drawings** shortly after the default event.
- **Margin of Conservatism (MoC):** The **inclusion** of these facilities **must not lead to a reduction** in the **MoC**.

Modelling Approach

- **Rationale:** This approach ensures stable and reliable estimations of future drawings for unresolved cases by **aligning** the **CCF estimation timeframe** with the established **LGD recovery framework**.
- **Alignment with LGD:** Institutions must use the same "**maximum duration**" for both recovery and drawing processes to ensure simplicity and prevent the manipulation of CCF estimates.
- **Economic Logic:** A **maximum period** is necessary because the likelihood of observing significant **additional drawings** (or recoveries) **decreases over time**.
- **Neutral Impact:** Using the LGD recovery period **does not introduce a conservative bias**; if a drawing process ends early, the estimated additional drawings for the remaining time are simply treated as zero.
- **Estimation of Future Drawings:** For facilities that have **not yet reached the maximum period**, expected additional drawings must be estimated using a **modelling approach consistent with EBA GL on PD and LGD estimation**.

Guidelines on CCF Estimation 12/14

Risk Quantification

While the flexibility is left for institutions to choose an appropriate **estimation methodology**, it is also **necessary** that the **estimates are calibrated** to the LRA CCF.



LRA Calculation

Strictly based on **default-weighted arithmetic averages**.

sub-set averaging (e.g., yearly averages) and **unequal weighting** of recent data are **prohibited**.



Post-Default Drawings

Mandatory for non-retail; optional for retail exposures.



Calibration to the long-run average CCF

Two elements are introduced in these GL:

- for the case of missing risk drivers, a link is made to the appropriate MoC category;**
- the **calibration sample length** should be the **same length** as the length of the **quantification sample**, as was already clarified in the background and rationale of the GL PD and LGD.

Guidelines on CCF Estimation 13/14

CCF in-default

Where institutions incorporate **additional drawings** in their CCF estimates, a **CCF in-default estimate** must be assigned to **eligible defaulted exposures** in accordance with Art. 143(2) CRR. Where additional drawings are not reflected in CCF estimates, a specific CCF in-default estimate is **not required**, as any subsequent **exposure increase** is captured in LGD estimates.

Modelling approach

Applicable to both retail and non-retail exposures, the modelling approach follows **the principles of the modelling approach for LGD in-default estimates**. Institutions should estimate **CCF in-default** for each facility grade or pool of the rating system, using the **same estimation methods as for non-defaulted exposures**. The **12-month fixed-horizon reference date is not appropriate** for CCF in-default estimation.

- **Reference dates** are set in accordance with **additional drawing patterns** observed on **closed recovery processes**.
- Analyzed not only **until default** but also **after default** and until the termination of the drawing process. **Time in-default** and **additional drawings** realized so far may be incorporated directly as risk drivers or indirectly by setting the reference date.
- Institutions should monitor potential **changes in drawing patterns** and policies, and **justify systematic deviations** of **CCF in-default** estimates shortly after default from estimates immediately before default.

Simple approach

Available for **non-retail exposures only**, the **simple approach** may be used where **internal risk management policies** restrict additional drawings shortly after default with **empirical evidence** of restricted drawing behavior in the historical observation period.

- **Internal risk management policies** must **restrict additional drawings** shortly after default, as evidenced by a **low share of observed additional drawings** relative to the committed but undrawn amount at default date.
- **Non-defaulted grade-level CCF estimates** are applied based on the **latest available grade assignment** before default date. **No specific rating scale** is expected in the estimation phase, and **no migrations** are expected during the time in default.
- **No future drawings** should be estimated beyond the **maximum length of the recovery process** as specified by the institution.
- Relevant **facility-specific information** may be reflected by **overriding the output** of the rating assignment process.

Guidelines on CCF Estimation 14/14

Downturn Estimation

Several simplifications are suggested that are considered proportional to the complexity of CCF models

No extrapolation at risk driver level

For **CCF estimation**, the **extrapolation should not be performed at the level of individual risk drivers**, unlike in the framework for downturn LGD.

Add-on Application and Removal of the LGD Cap

Where an observed and estimated downturn impact **is not available for the downturn CCF estimation**, the **add-on of 15 percentage points** is maintained but the **cap of 105 percent is removed**. The realised **CCF can go well beyond 100%**.

Possibility to apply the same downturn component

Institutions may **apply the same downturn component to CCF estimates** for **defaulted exposures** and **non-defaulted exposures**.

Correlation between the default frequency and magnitude of the conversion factors

- IRB-CCF shall incorporate a **greater margin of conservatism** where a stronger positive correlation **can reasonably** be expected between the **default frequency and the magnitude of the conversion factor**.
- If a positive correlation **can reasonably** be expected between the default frequency and the **magnitude of EAD**, the EAD estimate **must incorporate a larger margin of conservatism**.
- The **assessment of the correlation between the default frequency and CCF values** that is performed within the context of the estimation of the downturn component is sufficient to fulfil the related requirement of Article 182(1) of the CRR3.

03

Conclusions



Key points are summarized below.



Scope of Application & Fixed CCF: IRB-CCF covers all undrawn revolving commitments (Art. 166(8b) CRR3), including advised/unadvised and fully drawn facilities, with no 100% cap on drawings. A Fixed CCF ($\geq 100\%$) is only permitted where model estimation is unfeasible, subject to proven data gap, adequate MoC, and mandatory back-testing.



Data Framework: CCF is estimated at single-facility level from a RDS split into Development, Testing and Quantification samples. A fixed reference date (12 months prior to the date of default) is mandatory per Art. 182(1) CRR3, with fast defaults retracted or excluded. Multiple defaults within a 9-month window are merged from the first default date.



Realised CCF Calculation & Region of Instability: Multiple revolving contracts within the same facility are consolidated, and customer product mix changes in the 12 months before default must be identified to avoid downward bias in CCF estimates. Facilities near full utilization fall into the Region of Instability, where an alternative CCF must be applied, and is mandatory for all fully drawn facilities.



Incomplete Cases, LRA CCF & CCF In-Default: Incomplete cases, LRA CCF, and CCF in-default require modeling aligned with the LGD recovery period or specific simplified methods for non-retail. LRA CCF mandates a historical default-weighted average, banning sub-period weighting. Post-default drawing policies must be consistently modeled or restricted.



Downturn Estimation: Downturn CCF estimation offers a simplified, uniform approach across all exposures, as it requires no extrapolation at the individual risk driver level. However, to account for potential risks, institutions must incorporate a higher Margin of Conservatism (MoC) whenever a positive correlation between default frequency and CCF magnitude is observed, thereby ensuring compliance with Art. 182(1) CRR3.

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