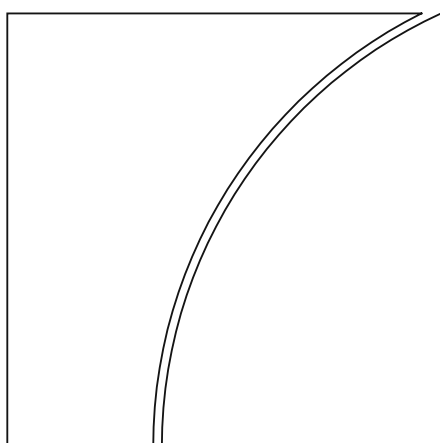


# Basel Committee on Banking Supervision



## Frequently asked questions on climate- related financial risks

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# Frequently asked questions on climate-related financial risks

## Introduction

The Basel Framework is the full set of standards of the Basel Committee on Banking Supervision, the primary global standard setter for the prudential regulation of banks. To help promote consistent interpretation of the framework, the Basel Committee periodically publishes the answers to frequently asked questions (FAQs). This document sets out a number of FAQs that the Basel Committee has agreed to add to the Basel Framework covering issues related to climate-related financial risks.

The Basel Committee is taking a holistic approach to addressing climate-related financial risks to the global banking system in support of its mandate to strengthen the regulation, supervision and practices of banks worldwide with the purpose of enhancing financial stability.

In pursuing this work, the Basel Committee is examining the extent to which climate-related financial risks can be addressed within the Basel Framework, identifying potential gaps in the current framework and considering possible measures to address them. Current work in this area is comprehensive in nature, spanning regulatory, supervisory and disclosure dimensions.

In 2021, the Basel Committee published analytical reports<sup>1</sup> that concluded climate risk drivers can be captured in traditional financial risk categories. For that reason, banks should consider how to incorporate climate-related financial risks in their interpretation and application of the existing Basel Framework, and continuously develop their capacity and expertise in relation to climate-related financial risks.

As part of its holistic approach, the Basel Committee has developed responses to FAQs to clarify how climate-related financial risks may be captured in existing Pillar 1 standards. Consistent with the objective of FAQs, the responses are intended to facilitate consistent interpretation of existing standards given the unique features of climate-related financial risks and should not be interpreted as changes to the standards. The responses are consistent with the Basel Committee's *Principles for the effective management and supervision of climate-related financial risks* (2022).

Where appropriate, the responses explicitly acknowledge data limitations and recognise practices will evolve iteratively over time. Given that challenges arising from methodological and data limitations cannot be fully resolved at this time, the responses are intended to allow for flexibility while also encouraging banks to continuously develop their measurement and mitigation of climate-related financial risks and therefore promote a globally consistent implementation of the Basel Framework.

The current publication represents a set of responses to initial FAQs but should not be considered an exhaustive list of standards where the impact of climate risk drivers should be considered. The Basel Committee will publish additional FAQs in future, as needed, to facilitate implementation of the existing Basel Framework, particularly as the availability of sufficiently granular data and consistent measurement methodologies for climate-related financial risks improves over time.

<sup>1</sup> See "[Basel Committee publishes analytical reports on climate-related financial risks](#)", press release, 14 April 2021.

## CRE – Calculation of RWA for credit risk

### Due diligence requirements

Paragraph to which the FAQ relates: CRE20.4, CRE20.20, and CRE20.42 (2023 version)

Consistent with the Committee’s guidance on the assessment of credit risk and paragraphs SRP20.12 to SRP20.14 of the supervisory review process standard, banks must perform due diligence to ensure that they have an adequate understanding, at origination and thereafter on a regular basis (at least annually), of the risk profile and characteristics of their counterparties. In cases where ratings are used, due diligence is necessary to assess the risk of the exposure for risk management purposes and whether the risk weight applied is appropriate and prudent. The sophistication of the due diligence should be appropriate to the size and complexity of banks’ activities. Banks must take reasonable and adequate steps to assess the operating and financial performance levels and trends through internal credit analysis and/or other analytics outsourced to a third party, as appropriate for each counterparty. Banks must be able to access information about their counterparties on a regular basis to complete due diligence analyses.

#### FAQ 1

Should banks assess climate-related financial risks as part of due diligence analyses with respect to counterparty creditworthiness?

#### Answer

Climate-related financial risks can impact banks’ credit risk exposure through their counterparties. To the extent that the risk profile of a counterparty is affected by climate-related financial risks, banks should give proper consideration to the climate-related financial risks as part of the counterparty due diligence. To that end, banks should integrate climate-related financial risks either in their own credit risk assessment or when performing due diligence on external ratings.

### Exposures to covered bonds

Paragraph to which the FAQ relates: CRE20.39 (2023 version)

Banks must perform due diligence to ensure that the external ratings appropriately and conservatively reflect the creditworthiness of the covered bond and the issuing bank. If the due diligence analysis reflects higher risk characteristics than that implied by the external rating bucket of the exposure (ie AAA to AA–; A+ to A– etc), the bank must assign a risk weight at least one bucket higher than the “base” risk weight determined by the external rating. Due diligence analysis must never result in the application of a lower risk weight than that determined by the external rating.

#### FAQ 2

Should banks assess climate-related financial risks as part of the due diligence analyses with respect to covered bonds and their issuing banks?

#### Answer

Climate-related financial risks can impact banks’ exposure through the creditworthiness of the covered bond and the issuing bank. To the extent that the creditworthiness of the covered bond and the issuing bank is affected by climate-related financial risks, banks should give proper consideration to the climate-related financial risks as part of the due diligence. To that end, banks should integrate climate-related

financial risks either in their own credit risk assessment or when performing due diligence on external ratings.

## Standardised Credit Risk Assessment Approach (SCRA)

Paragraph to which the FAQ relates: CRE20.22 (2023 version)

Grade A refers to exposures to banks, where the counterparty bank has adequate capacity to meet their financial commitments (including repayments of principal and interest) in a timely manner, for the projected life of the assets or exposures and irrespective of the economic cycles and business conditions.

### FAQ 3

To what extent should climate-related financial risks be taken into consideration when determining Grade A classification?

#### Answer

Banks should consider the impact of material climate-related financial risks on the counterparty bank's capacity to meet their financial commitments in a timely manner for the projected life of the bank's assets or exposures to this counterparty bank. Prudent practice by the bank to evaluate the counterparty bank's ability to repay commitments could include incorporating consideration of material climate-related financial risks into the entire credit life cycle, including client due diligence as part of the onboarding process and ongoing monitoring of clients' risk profiles.

## General corporate exposures

Paragraph to which the FAQ relates: CRE20.46 (2023 version)

Banks in jurisdictions that do not allow the use of external ratings for regulatory purposes may assign a 65% risk weight to exposures to "investment grade" corporates. An "investment grade" corporate is a corporate entity that has adequate capacity to meet its financial commitments in a timely manner and its ability to do so is assessed to be robust against adverse changes in the economic cycle and business conditions. When making this determination, the bank should assess the corporate entity against the investment grade definition taking into account the complexity of its business model, performance against industry and peers, and risks posed by the entity's operating environment. Moreover, the corporate entity (or its parent company) must have securities outstanding on a recognised securities exchange.

### FAQ 4

To what extent should banks assess whether the corporate has sufficiently accounted for climate-related financial risks in order to meet the "investment grade" definition?

#### Answer

When determining whether a given corporate meets the investment grade definition, banks should consider and evaluate how material climate-related financial risks might impact the capacity of the corporate to meet its financial commitments in a timely manner even under adverse changes in the economic cycle and business conditions.

Banks should also rely on a systematic credit review process to identify at an early stage whether the credit quality of the corporate has decreased such that it no longer meets the "investment grade" definition. Given the uncertainty of the materiality and timing of the impact of climate-related financial

risks, banks should continue to evaluate the impact of climate-related financial risks as the capacity to evaluate climate-related financial risk data improves.

## Specialised lending

Paragraph to which the FAQ relates: CRE20.52 (2023 version)

A high-quality project finance exposure refers to an exposure to a project finance entity that is able to meet its financial commitments in a timely manner and its ability to do so is assessed to be robust against adverse changes in the economic cycle and business conditions. The following conditions must also be met:

1. the project finance entity is restricted from acting to the detriment of the creditors (eg by not being able to issue additional debt without the consent of existing creditors);
2. the project finance entity has sufficient reserve funds or other financial arrangements to cover the contingency funding and working capital requirements of the project;
3. the revenues are availability-based or subject to a rate-of-return regulation or take-or-pay contract;
4. the project finance entity's revenue depends on one main counterparty and this main counterparty shall be a central government, PSE or a corporate entity with a risk weight of 80% or lower;
5. the contractual provisions governing the exposure to the project finance entity provide for a high degree of protection for creditors in case of a default of the project finance entity;
6. the main counterparty or other counterparties which similarly comply with the eligibility criteria for the main counterparty will protect the creditors from the losses resulting from a termination of the project;
7. all assets and contracts necessary to operate the project have been pledged to the creditors to the extent permitted by applicable law; and
8. creditors may assume control of the project finance entity in case of its default.

### FAQ 5

To what extent does the classification as high-quality project finance require consideration of climate-related financial risks?

#### Answer

Changes in environmental policy, technological progress or investor sentiment can leave projects exposed to transition risks. At the same time, projects may be exposed to physical risks depending on their type and location.

When assessing the ability of a project finance entity to meet its financial commitments in a timely manner, banks should consider the extent to which climate-related financial risks may have an adverse impact on the ability of a project finance entity to meet its financial commitments in a timely manner. Given uncertainty of the materiality and timing of the impact of climate-related financial risks, banks should evaluate on an ongoing basis the impact of climate-related financial risks as the capacity to evaluate climate-related financial risk data improves.



## Regulatory real estate exposures

Paragraph to which the FAQ relates: CRE20.72 (2023 version)

The risk weights for regulatory real estate exposures will apply to jurisdictions where structural factors result in sustainably low credit losses associated with the exposures to the real estate market. National supervisors should evaluate whether the risk weights in the corresponding risk weight tables are too low for these types of exposures in their jurisdictions based on default experience and other factors such as market price stability. Supervisors may require banks in their jurisdictions to increase these risk weights as appropriate.

### FAQ 6

To what extent should supervisors consider climate-related financial risks in evaluating whether the risk weights in the corresponding risk weight tables are too low?

#### Answer

In this evaluation, national supervisors should also consider climate-related financial risks, including the potential damage effects or value losses emerging from climate-related financial risks (eg weather-related hazards, the implementation of climate-policy standards or changes in investment and consumption patterns derived from transition policies).

Paragraph to which the FAQ relates: CRE20.75 (2023 version)

The LTV must be prudently calculated in accordance with the following requirements:

1. Amount of the loan; includes the outstanding loan amount and any undrawn committed amount of the mortgage loan. The loan amount must be calculated gross of any provisions and other risk mitigants, except for pledged deposits accounts with the lending bank that meet all requirements for on-balance sheet netting and have been unconditionally and irrevocably pledged for the sole purposes of redemption of the mortgage loan.
2. Value of the property: the valuation must be appraised independently using prudently conservative valuation criteria. To ensure that the value of the property is appraised in a prudently conservative manner, the valuation must exclude expectations on price increases and must be adjusted to take into account the potential for the current market price to be significantly above the value that would be sustainable over the life of the loan. National supervisors should provide guidance setting out prudent valuation criteria where such guidance does not already exist under national law. If a market value can be determined, the valuation should not be higher than the market value.

### FAQ 7

To what extent should banks consider climate-related financial risks when determining property value?

#### Answer

Banks should determine whether the current market value incorporates the potential changes in the value of properties emerging from climate-related financial risks (eg potential damage related to weather hazards, the implementation of climate-policy standards or changes in investment and consumption patterns derived from transition policies). National supervisors should consider jurisdiction-specific features that account for climate-related financial risks when setting out prudent valuation criteria.

## Internal-ratings based (IRB) approach: Supervisory slotting criteria for specialised lending

Paragraph to which the FAQ relates: CRE33.13 (2019 version)

The following table sets out the supervisory rating grades for project finance exposures subject to the supervisory slotting approach:

	Strong	Good	Satisfactory	Weak
<b>Financial strength</b>				
Market conditions	Few competing suppliers or substantial and durable advantage in location, cost, or technology. Demand is strong and growing	Few competing suppliers or better than average location, cost, or technology but this situation may not last. Demand is strong and stable	Project has no advantage in location, cost, or technology. Demand is adequate and stable	Project has worse than average location, cost, or technology. Demand is weak and declining
Financial ratios (eg <i>debt service coverage ratio (DSCR), loan life coverage ratio, project life coverage ratio, and debt-to-equity ratio</i> )	Strong financial ratios considering the level of project risk; very robust economic assumptions	Strong to acceptable financial ratios considering the level of project risk; robust project economic assumptions	Standard financial ratios considering the level of project risk	Aggressive financial ratios considering the level of project risk
Stress analysis	The project can meet its financial obligations under sustained, severely stressed economic or sectoral conditions	The project can meet its financial obligations under normal stressed economic or sectoral conditions. The project is only likely to default under severe economic conditions	The project is vulnerable to stresses that are not uncommon through an economic cycle, and may default in a normal downturn	The project is likely to default unless conditions improve soon
<i>Financial structure</i>				
Duration of the credit compared to the duration of the project	Useful life of the project significantly exceeds tenor of the loan	Useful life of the project exceeds tenor of the loan	Useful life of the project exceeds tenor of the loan	Useful life of the project may not exceed tenor of the loan
Amortisation schedule	Amortising debt	Amortising debt	Amortising debt repayments with limited bullet payment	Bullet repayment or amortising debt repayments with high bullet repayment
<b>Political and legal environment</b>				
Political risk, including transfer risk, considering project type and mitigants	Very low exposure; strong mitigation instruments, if needed	Low exposure; satisfactory mitigation instruments, if needed	Moderate exposure; fair mitigation instruments	High exposure; no or weak mitigation instruments

	Strong	Good	Satisfactory	Weak
Force majeure risk (war, civil unrest, etc), Government support and project's importance for the country over the long term	Low exposure  Project of strategic importance for the country (preferably export-oriented). Strong support from government	Acceptable exposure  Project considered important for the country. Good level of support from government	Standard protection  Project may not be strategic but brings unquestionable benefits for the country. Support from government may not be explicit	Significant risks, not fully mitigated  Project not key to the country. No or weak support from government
Stability of legal and regulatory environment (risk of change in law) Acquisition of all necessary supports and approvals for such relief from local content laws Enforceability of contracts, collateral and security	Favourable and stable regulatory environment over the long term  Strong  Contracts, collateral and security are enforceable	Favourable and stable regulatory environment over the medium term  Satisfactory  Contracts, collateral and security are enforceable	Regulatory changes can be predicted with a fair level of certainty  Fair  Contracts, collateral and security are considered enforceable even if certain non-key issues may exist	Current or future regulatory issues may affect the project  Weak  There are unresolved key issues in respect if actual enforcement of contracts, collateral and security
<b>Transaction characteristics</b>				
<i>Design and technology risk</i>	Fully proven technology and design	Fully proven technology and design	Proven technology and design – start-up issues are mitigated by a strong completion package	Unproven technology and design; technology issues exist and/or complex design
<i>Construction risk</i>				
Permitting and siting	All permits have been obtained	Some permits are still outstanding but their receipt is considered very likely	Some permits are still outstanding but the permitting process is well defined and they are considered routine	Key permits still need to be obtained and are not considered routine. Significant conditions may be attached
Type of construction contract	Fixed-price date-certain turnkey construction engineering and procurement contract (EPC)	Fixed-price date-certain turnkey construction EPC	Fixed-price date-certain turnkey construction contract with one or several contractors	No or partial fixed-price turnkey contract and/or interfacing issues with multiple contractors

	Strong	Good	Satisfactory	Weak
Completion guarantees	Substantial liquidated damages supported by financial substance and/or strong completion guarantee from sponsors with excellent financial standing	Significant liquidated damages supported by financial substance and/or completion guarantee from sponsors with good financial standing	Adequate liquidated damages supported by financial substance and/or completion guarantee from sponsors with good financial standing	Inadequate liquidated damages or not supported by financial substance or weak completion guarantees
Track record and financial strength of contractor in constructing similar projects.	Strong	Good	Satisfactory	Weak
<i>Operating risk</i>				
Scope and nature of operations and maintenance (O & M) contracts	Strong long-term O&M contract, preferably with contractual performance incentives, and/or O&M reserve accounts	Long-term O&M contract, and/or O&M reserve accounts	Limited O&M contract or O&M reserve account	No O&M contract: risk of high operational cost overruns beyond mitigants
Operator's expertise, track record, and financial strength	Very strong, or committed technical assistance of the sponsors	Strong	Acceptable	Limited/weak, or local operator dependent on local authorities
<i>Off-take risk</i>				
(a) If there is a take-or-pay or fixed-price off-take contract:	Excellent creditworthiness of off-taker; strong termination clauses; tenor of contract comfortably exceeds the maturity of the debt	Good creditworthiness of off-taker; strong termination clauses; tenor of contract exceeds the maturity of the debt	Acceptable financial standing of off-taker; normal termination clauses; tenor of contract generally matches the maturity of the debt	Weak off-taker; weak termination clauses; tenor of contract does not exceed the maturity of the debt
(b) If there is no take-or-pay or fixed-price off-take contract:	Project produces essential services or a commodity sold widely on a world market; output can readily be absorbed at projected prices even at lower than historic market growth rates	Project produces essential services or a commodity sold widely on a regional market that will absorb it at projected prices at historical growth rates	Commodity is sold on a limited market that may absorb it only at lower than projected prices	Project output is demanded by only one or a few buyers or is not generally sold on an organised market

	Strong	Good	Satisfactory	Weak
<i>Supply risk</i>				
Price, volume and transportation risk of feed-stocks; supplier's track record and financial strength	Long-term supply contract with supplier of excellent financial standing	Long-term supply contract with supplier of good financial standing	Long-term supply contract with supplier of good financial standing — a degree of price risk may remain	Short-term supply contract or long-term supply contract with financially weak supplier — a degree of price risk definitely remains
Reserve risks (eg natural resource development)	Independently audited, proven and developed reserves well in excess of requirements over lifetime of the project	Independently audited, proven and developed reserves in excess of requirements over lifetime of the project	Proven reserves can supply the project adequately through the maturity of the debt	Project relies to some extent on potential and undeveloped reserves
<b>Strength of Sponsor</b>				
Sponsor's track record, financial strength, and country/sector experience	Strong sponsor with excellent track record and high financial standing	Good sponsor with satisfactory track record and good financial standing	Adequate sponsor with adequate track record and good financial standing	Weak sponsor with no or questionable track record and/or financial weaknesses
Sponsor support, as evidenced by equity, ownership clause and incentive to inject additional cash if necessary	Strong. Project is highly strategic for the sponsor (core business – long-term strategy)	Good. Project is strategic for the sponsor (core business – long-term strategy)	Acceptable. Project is considered important for the sponsor (core business)	Limited. Project is not key to sponsor's long-term strategy or core business
<b>Security Package</b>				
Assignment of contracts and accounts	Fully comprehensive	Comprehensive	Acceptable	Weak
Pledge of assets, taking into account quality, value and liquidity of assets	First perfected security interest in all project assets, contracts, permits and accounts necessary to run the project	Perfected security interest in all project assets, contracts, permits and accounts necessary to run the project	Acceptable security interest in all project assets, contracts, permits and accounts necessary to run the project	Little security or collateral for lenders; weak negative pledge clause
Lender's control over cash flow (eg cash sweeps, independent escrow accounts)	Strong	Satisfactory	Fair	Weak

	Strong	Good	Satisfactory	Weak
Strength of the covenant package (mandatory prepayments, payment deferrals, payment cascade, dividend restrictions...)	Covenant package is strong for this type of project Project may issue no additional debt	Covenant package is satisfactory for this type of project Project may issue extremely limited additional debt	Covenant package is fair for this type of project Project may issue limited additional debt	Covenant package is insufficient for this type of project Project may issue unlimited additional debt
Reserve funds (debt service, O&M, renewal and replacement, unforeseen events etc)	Longer than average coverage period, all reserve funds fully funded in cash or letters of credit from highly rated bank	Average coverage period, all reserve funds fully funded	Average coverage period, all reserve funds fully funded	Shorter than average coverage period, reserve funds funded from operating cash flows

## FAQ 8

How can banks reflect climate-related financial risks in the Supervisory slotting criteria for specialised lending?

### Answer

When performing the assessment of the category of the subfactor components, banks should analyse how climate-related financial risks could negatively impact the assignment into a category. This includes any potential impact on the financial strength (eg estimations of the future demand, economic assumption and stressed economic conditions used for stress analysis), the political and legal environment (eg transition risk into “stability of legal and regulatory environment (risk of change in law)”, physical risk into “Force majeure risk (war, civil unrest etc)” and the asset characteristic in the case of object finance. When performing this assessment, banks should take into consideration whether climate-related financial risks have been adequately mitigated (eg improving adaptation or taking insurance coverage against physical climate risks).

## Rating criteria

Paragraph to which the FAQ relates: CRE36.26 (2023 version)

To ensure that banks are consistently taking into account available information, they must use all relevant and material information in assigning ratings to borrowers and facilities. Information must be current. The less information a bank has, the more conservative must be its assignments of exposures to borrower and facility grades or pools. An external rating can be the primary factor determining an internal rating assignment; however, the bank must ensure that it considers other relevant information.

## FAQ 9

To what extent should material and relevant information on climate-related financial risks be used when assigning ratings to borrowers and facilities?

### Answer

When assigning ratings to borrowers and facilities, banks should take into consideration material and relevant information on the impact of climate-related financial risks on the borrower’s financial condition and facility characteristics. This includes consideration of the physical and transition risks that the borrower

is exposed to, as well as measures undertaken by the borrower to mitigate such risks. Banks should establish an effective process to obtain and update relevant and material climate-related information on the borrowers' financial condition and facility characteristics, as part of the onboarding process and ongoing monitoring of borrowers' risk profile.

Where the bank is of the view that an exposure is materially exposed to climate-related financial risks but has insufficient information to estimate the extent to which the borrower's financial condition or facility characteristics would be impacted, the bank should consider if it would be appropriate to take a more conservative approach in the assignment of exposures to borrower and facility grades or pools in the application of the rating model. It is recognised that data used to analyse these risks may not be immediately available and, hence, banks may rely to some extent on a conservative application of expert judgment for the purpose of the rating assignment. Banks are reminded of the requirements in CRE36.44 in respect of rating assignments where overrides are applied based on expert judgments, as well as CRE36.32 in cases where available data are limited or where projected information is used.

## Rating assignment horizon

Paragraph to which the FAQ relates: CRE36.30 (2023 version)

A borrower rating must represent the bank's assessment of the borrower's ability and willingness to contractually perform despite adverse economic conditions or the occurrence of unexpected events. The range of economic conditions that are considered when making assessments must be consistent with current conditions and those that are likely to occur over a business cycle within the respective industry/geographic region. Rating systems should be designed in such a way that idiosyncratic or industry-specific changes are a driver of migrations from one category to another, and business cycle effects may also be a driver.

### FAQ 10

To what extent do the requirements for rating criteria and rating assignment require consideration of climate-related financial risks?

### Answer

According to CRE36.29, banks should use a time horizon longer than one year in assigning ratings. The range of economic conditions or unexpected events that should be considered when making the assessment of a borrower's ability to perform should include climate-related financial risks, both physical and transition risks, if these materialise as credit risks. Banks should assess whether climate-related financial risks will have an impact on obligors' ability to perform and this information should be integrated in rating assignments. In particular, if some data (eg counterparty location data, which is a particular risk driver for physical risk) have been already collected, banks should assess the granularity of the data and which additional data relevant to climate-related financial risks needs to be collected.

## Stress tests used in assessment of capital adequacy

Paragraph to which the FAQ relates: CRE36.50 (2023 version)

An IRB bank must have in place sound stress-testing processes for use in the assessment of capital adequacy. Stress testing must involve identifying possible events or future changes in economic conditions that could have unfavourable effects on a bank's credit exposures and assessment of the bank's ability to withstand such changes. Examples of scenarios that could be used are:

1. economic or industry downturns;
2. market risk events; and
3. liquidity conditions.

#### FAQ 11

Should banks that use the IRB approach consider climate-related risk drivers as possible events or future changes when performing stress tests used in the assessment of capital adequacy?

#### Answer

Climate-related financial risks have the potential to impact banks' credit exposures and banks' assessment of credit risk, asset impairment and expected credit losses. Banks should iteratively and progressively consider climate-related financial risks that affect the range of possible future economic conditions in their stress testing processes.

A bank that uses the IRB approach should consider climate-related financial risks that may significantly impact the bank's credit exposures within the assessment period.

### Overall requirements for estimation (structure and intent)

Paragraph to which the FAQ relates: CRE36.67 (2023 version)

In general, estimates of PDs, LGDs, and EADs are likely to involve unpredictable errors. In order to avoid over-optimism, a bank must add to its estimates a margin of conservatism that is related to the likely range of errors. Where methods and data are less satisfactory and the likely range of errors is larger, the margin of conservatism must be larger. Supervisors may allow some flexibility in application of the required standards for data that are collected prior to the date of implementation of this Framework. However, in such cases, banks must demonstrate to their supervisors that appropriate adjustments have been made to achieve broad equivalence to the data without such flexibility. Data collected beyond the date of implementation must conform to the minimum standards unless otherwise stated.

#### FAQ 12

Should banks add a margin of conservatism to estimates of PDs, LGDs and EADs to account for the fact that historical data are less satisfactory to capture climate-related financial risks, increasing the likely range of errors?

#### Answer

In the estimation of PDs, LGDs and EADs, challenges include the range of impact uncertainties, limitations in the availability and relevance of historical data describing the relationship of climate risk drivers to traditional financial risks, and questions around the time horizon. When a bank's credit portfolio is materially exposed to climate-related financial risks, it should strive primarily to consider these risks directly in its estimates. This can be achieved by making adjustments for limitations of techniques and information when estimating risk parameters (CRE36.78), as well as in assessing the implications of new data and the relevance of data not only for current but also for foreseeable market and economic conditions (CRE36.65 and CRE36.66).

A bank should add a margin of conservatism due to data deficiencies, such as poor data quality or scarce climate-related data, and to other sources of additional uncertainties.



To the extent that the information currently available on climate-related financial risks which materially impact a bank's credit portfolio is not yet sufficiently reliable, this may increase the range of errors.

## Requirements specific to PD estimation: corporate, sovereign and bank exposures

Paragraph to which the FAQ relates: CRE36.78 (2023 version)

Banks may have a primary technique and use others as a point of comparison and potential adjustment. Supervisors will not be satisfied by the mechanical application of a technique without supporting analysis. Banks must recognise the importance of judgmental considerations in combining results of techniques and in making adjustments for limitations of techniques and information. For all methods listed below, banks must estimate a PD for each rating grade based on the observed historical average one-year default rate, which is a simple average based on number of obligors (count-weighted). Weighting approaches, such as EAD weighting, are not permitted.

1. A bank may use data on internal default experience for the estimation of PD. A bank must demonstrate in its analysis that the estimates are reflective of underwriting standards and of any differences in the rating system that generated the data and the current rating system. Where only limited data are available, or where underwriting standards or rating systems have changed, the bank must add a greater margin of conservatism in its estimate of PD. The use of pooled data across institutions may also be recognised. A bank must demonstrate that the internal rating systems and criteria of other banks in the pool are comparable with its own.
2. Banks may associate or map their internal grades to the scale used by an external credit assessment institution or similar institution and then attribute the default rate observed for the external institution's grades to the bank's grades. Mappings must be based on a comparison of internal rating criteria to the criteria used by the external institution and on a comparison of the internal and external ratings of any common borrowers. Biases or inconsistencies in the mapping approach or underlying data must be avoided. The external institution's criteria underlying the data used for quantification must be oriented to the risk of the borrower and not reflect transaction characteristics. The bank's analysis must include a comparison of the default definitions used, subject to the requirements in CRE36.68 to CRE36.73. The bank must document the basis for the mapping.
3. A bank is allowed to use a simple average of default-probability estimates for individual borrowers in a given grade, where such estimates are drawn from statistical default prediction models. The bank's use of default probability models for this purpose must meet the standards specified in CRE36.33.

### FAQ 13

What climate-related financial risk considerations should banks take into account when mapping their internal PD grades to the scale used by an external credit assessment institution?

#### Answer

Where banks associate or map their internal grades to a scale used by an external credit assessment institution, they should consider whether the scale used by the external institution reflects material climate-related financial risks. Where the scale used by the external institution incorporates consideration of material climate-related financial risks, banks should critically review the models and methods used by the external credit assessment institution to judge climate-related financial risks given the challenges with data sources, data granularity and historical time series that often apply to data on climate-related financial risks. Where the scale used by the external institution does not incorporate consideration of climate-

related financial risks, banks should consider whether adjustments are appropriate to mitigate this limitation.

## Requirements specific to own-LGD estimates: standards for all asset classes

Paragraph to which the FAQ relates: CRE36.86 (2023 version)

Recognising the principle that realised losses can at times systematically exceed expected levels, the LGD assigned to a defaulted asset should reflect the possibility that the bank would have to recognise additional, unexpected losses during the recovery period. For each defaulted asset, the bank must also construct its best estimate of the expected loss on that asset based on current economic circumstances and facility status. The amount, if any, by which the LGD on a defaulted asset exceeds the bank's best estimate of expected loss on the asset represents the capital requirement for that asset, and should be set by the bank on a risk-sensitive basis in accordance with CRE31.3. Instances where the best estimate of expected loss on a defaulted asset is less than the sum of specific provisions and partial charge-offs on that asset will attract supervisory scrutiny and must be justified by the bank.

### FAQ 14

To what extent should material and relevant information on climate-related financial risks be used when assigning ratings to facilities?

#### Answer

When assigning ratings to facilities, banks should take into consideration material and relevant information on the impact of climate-related financial risks on the facility characteristics. Banks should establish an effective process to obtain and update relevant and material climate-related information on the facility characteristics.

Where the bank is of the view that an exposure is materially exposed to climate-related financial risks but has insufficient information to estimate the extent to which the facility characteristics would be impacted, the bank should consider if it would be appropriate to take a more conservative approach in the assignment of exposures to facility grades or pools in the application of the rating model. It is recognised that data used to analyse these risks may not be immediately available and hence, banks may rely to some extent on a conservative application of expert judgment for the purpose of the assignment of ratings to facility grades or pools. Banks are reminded of the requirements in CRE36.85 in respect of grounding LGD estimates in historical recovery rates and not solely on the collateral's estimated market value.

### FAQ 15

Should banks add a margin of conservatism to estimates of LGD-in-default to account for the fact that historical data are less satisfactory to capture climate-related financial risks – increasing the likely range of errors?

#### Answer

In the estimation of LGD-in-default, challenges include the range of impact uncertainties, limitations in the availability and relevance of historical data describing the relationship of climate risk drivers to traditional financial risks, and questions around the time horizon. When a bank's credit portfolio is materially exposed to climate-related financial risks, it should primarily strive for considering these risks directly in its estimates. This can be achieved by making adjustments for limitations of techniques and information when estimating risk parameters (CRE36.83), as well as in assessing the implications of new data and the

relevance of data not only for current but also for foreseeable market and economic conditions (CRE36.65 and CRE36.66).

A bank should add a margin of conservatism due to data deficiencies, such as poor data quality or scarce climate-related data, and to other sources of additional uncertainties.

To the extent that the information currently available on climate-related financial risks which materially impact a bank’s credit portfolio is not yet sufficiently reliable, this may increase the range of errors.

## OPE – Calculation of RWA for operational risk

### General criteria on loss data identification, collection and treatment

Paragraph to which the FAQ relates: OPE25.17 (2023 version)

For risk management purposes, and to assist in supervisory validation and/or review, a supervisor may request a bank to map its historical internal loss data into the relevant Level 1 supervisory categories as defined in Table 2 and to provide this data to supervisors. The bank must document criteria for allocating losses to the specified event types.

Detailed loss event type classification			Table 2
Event-type category (Level 1)	Definition	Categories (Level 2)	Activity examples (Level 3)
Internal fraud	Losses due to acts of a type intended to defraud, misappropriate property or circumvent regulations, the law or company policy, excluding diversity/discrimination events, which involves at least one internal party	Unauthorised activity	Transactions not reported (intentional) Transaction type unauthorised (with monetary loss) Mismarking of position (intentional)
		Theft and fraud	Fraud/credit fraud/worthless deposits Theft/extortion/embezzlement/robbery Misappropriation of assets Malicious destruction of assets Forgery Cheque kiting Smuggling Account takeover/impersonation etc Tax non-compliance/evasion (wilful) Bribes/kickbacks Insider trading (not on firm’s account)
External fraud	Losses due to acts of a type intended to defraud, misappropriate property or circumvent the law, by a third party	Theft and fraud	Theft/robbery Forgery Cheque kiting
		Systems security	Hacking damage Theft of information (with monetary loss)

Employment practices and workplace safety	Losses arising from acts inconsistent with employment, health or safety laws or agreements, from payment of personal injury claims, or from diversity/discrimination events	Employee relations	Compensation, benefit, termination issues Organised labour activity
		Safe environment	General liability (slip and fall etc) Employee health and safety rules events Workers' compensation
		Diversity and discrimination	All discrimination types
Clients, products and business practices	Losses arising from an unintentional or negligent failure to meet a professional obligation to specific clients (including fiduciary and suitability requirements), or from the nature or design of a product.	Suitability, disclosure and fiduciary	Fiduciary breaches/guideline violations Suitability/disclosure issues (know-your-customer etc) Retail customer disclosure violations Breach of privacy Aggressive sales Account churning Misuse of confidential information Lender liability
		Improper business or market practices	Antitrust Improper trade/market practices Market manipulation Insider trading (on firm's account) Unlicensed activity Money laundering
		Product flaws	Product defects (unauthorised etc) Model errors
		Selection, sponsorship and exposure	Failure to investigate client per guidelines Exceeding client exposure limits
		Advisory activities	Disputes over performance of advisory activities
Damage to physical assets	Losses arising from loss or damage to physical assets from natural disaster or other events	Disasters and other events	Natural disaster losses Human losses from external sources (terrorism, vandalism)
Business disruption and system failures	Losses arising from disruption of business or system failures	Systems	Hardware Software Telecommunications Utility outage/disruptions

Execution, delivery and process management	Losses from failed transaction processing or process management, from relations with trade counterparties and vendors	Transaction capture, execution and maintenance	Miscommunication Data entry, maintenance or loading error Missed deadline or responsibility Model/system misoperation Accounting error/entity attribution error Other task misperformance Delivery failure Collateral management failure Reference data maintenance
		Monitoring and reporting	Failed mandatory reporting obligation Inaccurate external report (loss incurred)
		Customer intake and documentation	Client permissions/disclaimers missing Legal documents missing/incomplete
		Customer/client account management	Unapproved access given to accounts Incorrect client records (loss incurred) Negligent loss or damage of client assets
		Trade counterparties	Non-client counterparty misperformance Miscellaneous non-client counterparty disputes
		Vendors and suppliers	Outsourcing Vendor disputes

## FAQ 16

How could banks ensure that losses stemming from climate-related financial risks are identifiable?

### Answer

Losses due to natural disasters map to the event type category “Damage to physical assets” from Table 2. However, climate-related financial risks may also cause operational risk losses in other event type categories. For example, if a bank is perceived to misrepresent sustainability-related practices or the sustainability-related features of its investment products, it could lead to litigation cases (event type category “Clients, products and business practices”). A power cut as a consequence of climate-related financial risks could cause an interruption to a bank’s services and communications (event type category “Business disruption and system failures”). Where feasible, losses whose root cause could stem from climate-related risk drivers could be identifiable from the loss database, for example, by using a flag.

## MAR – Calculation of RWA for market risk

### Stress testing

Paragraphs to which the FAQ relates: MAR30.20 (2023 version)

Banks’ stress scenarios must cover a range of factors that (i) can create extraordinary losses or gains in trading portfolios, or (ii) make the control of risk in those portfolios very difficult. These factors include low-probability events in all major types of risk, including the various components of market, credit and operational risks. A bank must design stress scenarios to assess the impact of such factors on positions

that feature both linear and non-linear price characteristics (ie options and instruments that have option-like characteristics).

#### FAQ 17

Should banks consider climate-related financial risks in their stress-testing scenarios for (i) understanding extraordinary losses or gains in trading portfolios, or (ii) identifying difficulties to control risks in those portfolios?

#### Answer

Banks should consider material climate-related risk drivers in their stress-testing programme to assess the potential impact on market risk positions, including the impact of a sudden shock to the value of financial instruments, the correlations between risk factors, and the pricing and availability of hedges. Material climate-related financial risks may be incorporated iteratively and progressively in stress-testing programmes and internal capital assessment processes (ICAAPs) as the methodologies and data used to analyse these risks mature over time and analytical gaps are addressed.

## LCR – Liquidity Coverage Ratio

### Calculation

Paragraphs to which the FAQ relates: LCR20.3 (2019 version)

This stress test should be viewed as a minimum supervisory requirement for banks. Banks are expected to conduct their own stress tests to assess the level of liquidity they should hold beyond this minimum, and construct their own scenarios that could cause difficulties for their specific business activities. Such internal stress tests should incorporate longer time horizons than the one mandated by this standard. Banks should share the results of these additional stress tests with supervisors.

#### FAQ 18

Should banks consider climate-related financial risks in conducting their own stress tests to assess the level of liquidity they should hold beyond the LCR minimum?

#### Answer

Banks should consider material climate-related financial risks in their internal liquidity stress tests to assess their potential impact on net cash outflows or the value of liquidity buffer assets. These assessments may inform the level of liquidity they should hold beyond the LCR minimum. Material climate-related financial risks may be incorporated into internal liquidity adequacy assessment processes iteratively and progressively as the methodologies and data used to analyse these risks mature over time and analytical gaps are addressed.

Paragraphs to which the FAQ relates: LCR20.6 (2019 version)

In particular, supervisory decisions regarding a bank's use of its HQLA should be guided by consideration of the core objective and definition of the LCR. Supervisors should exercise judgment in their assessment and account not only for prevailing macrofinancial conditions, but also consider forward-looking assessments of macroeconomic and financial conditions. In determining a response, supervisors should be aware that some actions could be procyclical if applied in circumstances of market-wide stress.

Supervisors should seek to take these considerations into account on a consistent basis across jurisdictions.

1. Supervisors should assess conditions at an early stage, and take actions if deemed necessary, to address potential liquidity risk.
2. Supervisors should allow for differentiated responses to a reported LCR below 100%. Any potential supervisory response should be proportionate with the drivers, magnitude, duration and frequency of the reported shortfall.
3. Supervisors should assess a number of firm- and market-specific factors in determining the appropriate response, as well as other considerations related to both domestic and global frameworks and conditions. Potential considerations include, but are not limited to:
  - a) the reason(s) that the LCR fell below 100%. This includes use of the stock of HQLA, an inability to roll over funding or large unexpected draws on contingent obligations. In addition, the reasons may relate to overall credit, funding and market conditions, including liquidity in credit, asset and funding markets, affecting individual banks or all institutions, regardless of their own condition;
  - b) the extent to which the reported decline in the LCR is due to a firm-specific or market-wide shock;
  - c) a bank's overall health and risk profile, including activities, positions with respect to other supervisory requirements, internal risk systems, controls and other management processes, among others;
  - d) the magnitude, duration and frequency of the reported decline of HQLA;
  - e) the potential for contagion to the financial system and additional restricted flow of credit or reduced market liquidity due to actions to maintain an LCR of 100%; and
  - f) the availability of other sources of contingent funding such as central bank funding,<sup>1</sup> or other actions by prudential authorities.

#### FAQ 19

Should supervisors consider climate-related financial risks in decisions regarding a bank's use of HQLA?

#### Answer

Supervisors should consider material climate-related financial risks among the range of other considerations in determining a response to a bank's use of its HQLA. For example, climate-related financial risks may impact both prevailing and forward-looking assessments of macroeconomic and financial conditions that are relevant in addressing a reported LCR below 100%, consistent with the overall approach to the prudential framework.