

Basel Committee on Banking Supervision

CRE

Calculation of RWA for credit
risk

CRE50

Counterparty credit risk
definitions and terminology

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First version in the format of the consolidated
framework.



BANK FOR INTERNATIONAL SETTLEMENTS

General terms

- 50.1 Counterparty credit risk (CCR)** is the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows. An economic loss would occur if the transactions or portfolio of transactions with the counterparty has a positive economic value at the time of default. Unlike a firm's exposure to credit risk through a loan, where the exposure to credit risk is unilateral and only the lending bank faces the risk of loss, CCR creates a bilateral risk of loss: the market value of the transaction can be positive or negative to either counterparty to the transaction. The market value is uncertain and can vary over time with the movement of underlying market factors.
- 50.2 A central counterparty (CCP)** is a clearing house that interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer and thereby ensuring the future performance of open contracts. A CCP becomes counterparty to trades with market participants through novation, an open offer system, or another legally binding arrangement. For the purposes of the capital framework, a CCP is a financial institution.
- 50.3 A qualifying central counterparty (QCCP)** is an entity that is licensed to operate as a CCP (including a license granted by way of confirming an exemption), and is permitted by the appropriate regulator/overseer to operate as such with respect to the products offered. This is subject to the provision that the CCP is based and prudentially supervised in a jurisdiction where the relevant regulator/overseer has established, and publicly indicated that it applies to the CCP on an ongoing basis, domestic rules and regulations that are consistent with the Principles for Financial Market Infrastructures issued by the Committee on Payments and Market Infrastructures and the International Organization of Securities Commissions.
- (1) Where the CCP is in a jurisdiction that does not have a CCP regulator applying the Principles to the CCP, then the banking supervisor may make the determination of whether the CCP meets this definition.
 - (2) In addition, for a CCP to be considered a QCCP, the requirements of [CRE54.37](#) must be met to permit each clearing member bank to calculate its capital requirement for its default fund exposures.
- 50.4 A clearing member** is a member of, or a direct participant in, a CCP that is entitled to enter into a transaction with the CCP, regardless of whether it enters into trades with a CCP for its own hedging, investment or speculative purposes or whether it also enters into trades as a financial intermediary between the CCP and other market participants.

For the purposes of the CCR standard, where a CCP has a link to a second CCP, that second CCP is to be treated as a clearing member of the first CCP. Whether the second CCP's collateral contribution to the first CCP is treated as initial margin or a default fund contribution will depend upon the legal arrangement between the CCPs. National supervisors should be consulted to determine the treatment of this initial margin and default fund contributions.

- 50.5** A **client** is a party to a transaction with a CCP through either a clearing member acting as a financial intermediary, or a clearing member guaranteeing the performance of the client to the CCP.
- 50.6** A **multi-level client structure** is one in which banks can centrally clear as indirect clients; that is, when clearing services are provided to the bank by an institution which is not a direct clearing member, but is itself a client of a clearing member or another clearing client. For exposures between clients and clients of clients, we use the term **higher level client** for the institution providing clearing services; and the term **lower level client** for the institution clearing through that client.
- 50.7** **Initial margin** means a clearing member's or client's funded collateral posted to the CCP to mitigate the potential future exposure (PFE) of the CCP to the clearing member arising from the possible future change in the value of their transactions. For the purposes of the calculation of counterparty credit risk capital requirements, initial margin does not include contributions to a CCP for mutualised loss sharing arrangements (ie in case a CCP uses initial margin to mutualise losses among the clearing members, it will be treated as a default fund exposure). Initial margin includes collateral deposited by a clearing member or client in excess of the minimum amount required, provided the CCP or clearing member may, in appropriate cases, prevent the clearing member or client from withdrawing such excess collateral.
- 50.8** **Variation margin** means a clearing member's or client's funded collateral posted on a daily or intraday basis to a CCP based upon price movements of their transactions.
- 50.9** **Trade exposures** (in [CRE54](#)) include the current and potential future exposure of a clearing member or a client to a CCP arising from over-the-counter derivatives, exchange traded derivatives transactions or securities financing transactions, as well as initial margin. For the purposes of this definition, the current exposure of a clearing member includes the variation margin due to the clearing member but not yet received.

50.10 Default funds also known as clearing deposits or guaranty fund contributions (or any other names), are clearing members' funded or unfunded contributions towards, or underwriting of, a CCP's mutualised loss sharing arrangements. The

description given by a CCP to its mutualised loss sharing arrangements is not determinative of their status as a default fund; rather, the substance of such arrangements will govern their status.

50.11 Offsetting transaction means the transaction leg between the clearing member and the CCP when the clearing member acts on behalf of a client (eg when a clearing member clears or novates a client's trade).

Transaction types

50.12 Long settlement transactions are transactions where a counterparty undertakes to deliver a security, a commodity, or a foreign exchange amount against cash, other financial instruments, or commodities, or vice versa, at a settlement or delivery date that is contractually specified as more than the lower of the market standard for this particular instrument and five business days after the date on which the bank enters into the transaction.

50.13 Securities financing transactions (SFTs) are transactions such as repurchase agreements, reverse repurchase agreements, security lending and borrowing, and margin lending transactions, where the value of the transactions depends on market valuations and the transactions are often subject to margin agreements.

50.14 Margin lending transactions are transactions in which a bank extends credit in connection with the purchase, sale, carrying or trading of securities. Margin lending transactions do not include other loans that happen to be secured by securities collateral. Generally, in margin lending transactions, the loan amount is collateralised by securities whose value is greater than the amount of the loan.

Netting sets, hedging sets, and related terms

50.15 Netting set is a group of transactions with a single counterparty that are subject to a legally enforceable bilateral netting arrangement and for which netting is recognised for regulatory capital purposes under the provisions of [CRE52.7](#) and [CRE52.8](#) that are applicable to the group of transactions, this framework text on credit risk mitigation techniques in [CRE22](#), or the cross product netting rules set out in [CRE53.61](#) to [CRE53.71](#). Each transaction that is not subject to a legally enforceable bilateral netting arrangement that is recognised for regulatory capital purposes should be interpreted as its own netting set for the purpose of these rules.

- 50.16 Hedging set** is a set of transactions within a single netting set within which full or partial offsetting is recognised for the purpose of calculating the PFE add-on of the Standardised Approach for counterparty credit risk.
- 50.17 Margin agreement** is a contractual agreement or provisions to an agreement under which one counterparty must supply variation margin to a second counterparty when an exposure of that second counterparty to the first counterparty exceeds a specified level.
- 50.18 Margin threshold** is the largest amount of an exposure that remains outstanding until one party has the right to call for variation margin.
- 50.19 Margin period of risk** is the time period from the last exchange of collateral covering a netting set of transactions with a defaulting counterparty until that counterparty is closed out and the resulting market risk is re-hedged.
- 50.20 Effective maturity** under the Internal Models Method for a netting set with maturity greater than one year is the ratio of the sum of expected exposure over the life of the transactions in a netting set discounted at the risk-free rate of return divided by the sum of expected exposure over one year in a netting set discounted at the risk-free rate. This effective maturity may be adjusted to reflect rollover risk by replacing expected exposure with effective expected exposure for forecasting horizons under one year. The formula is given in [CRE53.20](#).
- 50.21 Cross-product netting** refers to the inclusion of transactions of different product categories within the same netting set pursuant to the cross-product netting rules set out in [CRE53](#).

Distributions

- 50.22 Distribution of market values** is the forecast of the probability distribution of net market values of transactions within a netting set for some future date (the forecasting horizon) given the realised market value of those transactions up to the present time.
- 50.23 Distribution of exposures** is the forecast of the probability distribution of market values that is generated by setting forecast instances of negative net market values equal to zero (this takes account of the fact that, when the bank owes the counterparty money, the bank does not have an exposure to the counterparty).
- 50.24 Risk-neutral distribution** is a distribution of market values or exposures at a future time period where the distribution is calculated using market implied values such as implied volatilities.

50.25 Actual distribution is a distribution of market values or exposures at a future time period where the distribution is calculated using historic or realised values such as volatilities calculated using past price or rate changes.

Exposure measures and adjustments

50.26 Current exposure is the larger of zero, or the current market value of a transaction or portfolio of transactions within a netting set with a counterparty that would be lost upon the immediate default of the counterparty, assuming no recovery on the value of those transactions in bankruptcy. Current exposure is often also called Replacement Cost.

50.27 Peak exposure is a high percentile (typically 95% or 99%) of the distribution of exposures at any particular future date before the maturity date of the longest transaction in the netting set. A peak exposure value is typically generated for many future dates up until the longest maturity date of transactions in the netting set.

50.28 Expected exposure is the mean (average) of the distribution of exposures at any particular future date before the longest-maturity transaction in the netting set matures. An expected exposure value is typically generated for many future dates up until the longest maturity date of transactions in the netting set.

50.29 Effective expected exposure at a specific date is the maximum expected exposure that occurs at that date or any prior date. Alternatively, it may be defined for a specific date as the greater of the expected exposure at that date, or the effective exposure at the previous date. In effect, the Effective Expected Exposure is the Expected Exposure that is constrained to be non-decreasing over time.

50.30 Expected positive exposure (EPE) is the weighted average over time of expected exposure where the weights are the proportion that an individual expected exposure represents of the entire time interval. When calculating the minimum capital requirement, the average is taken over the first year or, if all the contracts in the netting set mature before one year, over the time period of the longest-maturity contract in the netting set.

50.31 Effective expected positive exposure (Effective EPE) is the weighted average over time of effective expected exposure over the first year, or, if all the contracts in the netting set mature before one year, over the time period of the longest-maturity contract in the netting set where the weights are the proportion that an individual expected exposure represents of the entire time interval.

50.32 Credit valuation adjustment is an adjustment to the mid-market valuation of the portfolio of trades with a counterparty. This adjustment reflects the market value of the credit risk due to any failure to perform on contractual agreements with a counterparty. This adjustment may reflect the market value of the credit risk of the counterparty or the market value of the credit risk of both the bank and the counterparty.

50.33 One-sided credit valuation adjustment is a credit valuation adjustment that reflects the market value of the credit risk of the counterparty to the firm, but does not reflect the market value of the credit risk of the bank to the counterparty.

CCR-related risks

50.34 Rollover risk is the amount by which expected positive exposure is understated when future transactions with a counterparty are expected to be conducted on an ongoing basis, but the additional exposure generated by those future transactions is not included in calculation of expected positive exposure.

50.35 General wrong-way risk arises when the probability of default of counterparties is positively correlated with general market risk factors.

50.36 Specific wrong-way risk arises when the exposure to a particular counterparty is positively correlated with the probability of default of the counterparty due to the nature of the transactions with the counterparty.