



## Appendix CA-2: Definitions and General Terminology - Treatment of Counterparty Credit Risk and Cross-product Netting

### A. General Terms

- **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.

### B. Transaction Types

- **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, 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 5 business days after the date on which the bank enters into the transaction.
- **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.
- **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.



### C. Netting Sets, Hedging Sets and Related Terms

- **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 the Module CA, and the credit risk mitigation techniques in Module CA, or the Cross-Product Netting Rules set forth in this Appendix. 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.
- **Risk Position** is a risk number that is assigned to a transaction under the SA-CCR method (set out in this Appendix) using a regulatory algorithm.
- **Hedging Set** is a group of risk positions from the transactions within a single netting set for which only their balance is relevant for determining the exposure amount or EAD under the SA-CCR.
- **Margin Agreement** is a contractual agreement or provisions to an agreement under which one counterparty must supply collateral to a second counterparty when an exposure of the second counterparty to the first counterparty exceeds a specified level.
- **Margin Threshold** is the largest amount of an exposure that remains outstanding until one party has the right to call for collateral.
- **Margin Period of Risk** is the time period from the last exchange of collateral covering a netting set of transactions with a defaulting counterpart until that counterpart is closed out, and the resulting market risk is re-hedged.
- **Effective Maturity under the Internal Model Method** for a netting set with maturity greater than 1 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 1 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 1 year. The formula is given later in section V.
- **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 this Appendix.
- **Current Market Value ("CMV")** refers to the net market value of the portfolio of transactions within the netting set with the counterparty. Both positive and negative market values are used in computing CMV.

### D. Distributions

- **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.



- **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).
- **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.
- **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.

#### E. Exposure Measures and Adjustments

- **Current Exposure** is the larger of zero, or the market value of a transaction or portfolio of transactions within a netting set with a counterparty that would be lost upon the default of the counterparty, assuming no recovery on the value of those transactions in bankruptcy. Current exposure is often also called replacement cost.
- **Peak Exposure** is a high percentile (typically 95 percent or 99 percent) 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.
- **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.
- **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.
- **Expected Positive Exposure ('EPE')** is the weighted average, over time, of expected exposures 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 1 year, over the time period of the longest-maturity contract in the netting set.
- **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 1 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.



- **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.
- **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.

#### F. CCR-related Risks

- **Rollover Risk** is the amount by which expected positive exposure is understated when future transactions with a counterpart are expected to be conducted on an ongoing basis, but the additional exposure generated by those future transactions is not included in the calculation of expected positive exposure.
- **General Wrong-way Risk** arises when the probability of default of counterparties is positively correlated with general market risk factors.
- **Specific Wrong-way Risk** arises when the exposure to a particular counterpart is positively correlated with the probability of default of the counterparty due to the nature of the transactions with the counterparty.