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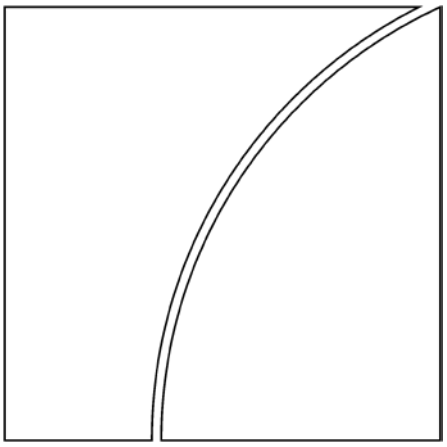

Capital requirements for bank exposures to central counterparties

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Regulatory rules text on the capital requirements for bank exposures to central counterparties

The interim framework for determining capital requirements for bank exposures to central counterparties is being introduced via additions and amendments to the *International Convergence of Capital Measurement and Capital Standards: A Revised Framework - Comprehensive Version*, June 2006 (hereinafter referred to as "Basel II").

General terms and scope of application

Annex 4, Section I, A. General Terms – the following terms are **added**:

- 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.

- 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 CPSS-IOSCO Principles for Financial Market Infrastructures.

  As is the case more generally, banking supervisors still reserve the right to require banks in their jurisdictions to hold additional capital against their exposures to such CCPs via Pillar 2. This might be appropriate where, for example, an external assessment such as an FSAP has found material shortcomings in the CCP or the regulation of CCPs, and the CCP and/or the CCP regulator have not since publicly addressed the issues identified.

  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.

  In addition, for a CCP to be considered a QCCP, the terms defined in paragraphs 122 and 123 of this Annex for the purposes of calculating the capital requirements for default fund exposures must be made available or calculated in accordance with paragraph 124 of this Annex.

- 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.[1]

- 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.
- **Initial margin** means a clearing member's or client's funded collateral posted to the CCP to mitigate the potential future exposure of the CCP to the clearing member arising from the possible future change in the value of their transactions. For the purposes of this Annex, 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).
- **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.
- **Trade exposures** (in section IX) include the current[2] and potential future exposure of a clearing member or a client to a CCP arising from OTC derivatives, exchange traded derivatives transactions or SFTs, as well as initial margin.
- **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.
- **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).

Annex 4, Section II. Scope of application. Paragraph 6 is **replaced** by the following:

6(i) Exposures to central counterparties arising from OTC derivatives, exchange traded derivatives transactions and SFTs will be subject to the counterparty credit risk treatment laid out in paragraphs 106 to 127 of this Annex. Exposures arising from the settlement of cash transactions (equities, fixed income, spot FX and spot commodities) are not subject to this treatment. The settlement of cash transactions remains subject to the treatment described in Annex 3.

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[1] For the purposes of this Annex, 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 and such supervisors should consult and communicate with other supervisors via the "frequently asked questions" process to ensure consistency.

[2] 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.

6(ii) When the clearing member-to-client leg of an exchange traded derivatives transaction is conducted under a bilateral agreement, both the client bank and the clearing member are to capitalise that transaction as an OTC derivative.

Annex 4, new section IX on central counterparties is **added**:

IX. Central Counterparties

106. Regardless of whether a CCP is classified as a QCCP, a bank retains the responsibility to ensure that it maintains adequate capital for its exposures. Under Pillar 2 of Basel II, a bank should consider whether it might need to hold capital in excess of the minimum capital requirements if, for example, (i) its dealings with a CCP give rise to more risky exposures or (ii) where, given the context of that bank's dealings, it is unclear that the CCP meets the definition of a QCCP.

107. Where the bank is acting as a clearing member, the bank should assess through appropriate scenario analysis and stress testing whether the level of capital held against exposures to a CCP adequately addresses the inherent risks of those transactions. This assessment will include potential future or contingent exposures resulting from future drawings on default fund commitments, and/or from secondary commitments to take over or replace offsetting transactions from clients of another clearing member in case of this clearing member defaulting or becoming insolvent.

108. A bank must monitor and report to senior management and the appropriate committee of the Board on a regular basis all of its exposures to CCPs, including exposures arising from trading through a CCP and exposures arising from CCP membership obligations such as default fund contributions.

109. Where a bank is trading with a Qualifying CCP (QCCP) as defined in Annex 4, Section I, A. General Terms, then paragraphs 110 to 125 of this Annex will apply. In the case of non-qualifying CCPs, paragraphs 126 and 127 of this Annex will apply. Within three months of a central counterparty ceasing to qualify as a QCCP, unless a bank's national supervisor requires otherwise, the trades with a former QCCP may continue to be capitalised as though they are with a QCCP. After that time, the bank's exposures with such a central counterparty must be capitalised according to paragraphs 126 and 127 of this Annex.

Exposures to Qualifying CCPs

A. Trade exposures

(i) Clearing member exposures to CCPs

110. Where a bank acts as a clearing member of a CCP for its own purposes, a risk weight of 2% must be applied to the bank's trade exposure to the CCP in respect of OTC derivatives, exchange traded derivative transactions and SFTs. Where the clearing member offers clearing services to clients, the 2% risk weight also applies to the clearing member's trade exposure to the CCP that arises when the clearing member is obligated to reimburse the client for any losses suffered due to changes in the value of its transactions in the event that the CCP defaults.

111. The exposure amount for such trade exposure is to be calculated in accordance with Annex 4 using the IMM,[3] CEM or Standardised Method, as consistently applied by such bank to such an exposure in the ordinary course of its business, or Part 2, Section II, D3 together with credit risk mitigation techniques set forth in Basel II for collateralised transactions.[4]

Where the respective exposure methodology allows for it, margining can be taken into account.

In the case of IMM banks, the 20-day floor for the margin period of risk (MPOR) as established in the first bullet point of Annex 4, paragraph 41(i) will not apply, provided that the netting set does not contain illiquid collateral or exotic trades and provided there are no disputed trades. This refers to exposure calculations under IMM, or the IMM short cut method of Annex 4, paragraph 41, and for the holding periods entering the exposure calculation of repo-style transactions in paragraphs 147 and 181.

112. Where settlement is legally enforceable on a net basis in an event of default and regardless of whether the counterparty is insolvent or bankrupt, the total replacement cost of all contracts relevant to the trade exposure determination can be calculated as a net replacement cost if the applicable close-out netting sets meet the requirements set out in:[5]

- Paragraphs 173 and, where applicable, also 174 of the main text in the case of repo-style transactions,
- Paragraphs 96(i) to 96(iii) of this Annex in the case of derivative transactions,
- Paragraphs 10 to 19 of this Annex in the case of cross-product netting.

To the extent that the rules referenced above include the term “master netting agreement”, this term should be read as including any “netting agreement” that provides legally enforceable rights of set-off.[6] If the bank cannot demonstrate that netting agreements meet these rules, each single transaction will be regarded as a netting set of its own for the calculation of trade exposure.

(ii) Clearing member exposures to clients

113. The clearing member will always capitalise its exposure (including potential CVA risk exposure) to clients as bilateral trades, irrespective of whether the clearing member guarantees the trade or acts as an intermediary between the client and the CCP. However, to recognise the shorter close-out period for cleared transactions, clearing members can capitalise the exposure to their clients applying a margin period of risk of at least 5 days (if they adopt the IMM); or multiplying the EAD by a

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[3] Changes to IMM introduced in Basel III also apply for these purposes.

[4] In particular, see paragraph 151 or 154 for OTC derivatives and standard supervisory haircuts or own estimates for haircuts, respectively; and for SFTs, see paragraph 178 for simple VaR model.

[5] For the purposes of this section IX, the treatment of netting also applies to exchange traded derivatives.

[6] This is to take account of the fact that for netting agreements employed by CCPs, no standardisation has currently emerged that would be comparable to the level of standardisation with respect to OTC netting agreements for bilateral trading.

scalar of no less than 0.71 (if they adopt either the CEM or the Standardised Method).[7]

(iii) Client exposures

114. Where a bank is a client of a clearing member, and enters into a transaction with the clearing member acting as a financial intermediary (ie the clearing member completes an offsetting transaction with a CCP), the client's exposures to the clearing member may receive the treatment in paragraphs 110 to 112 of this Annex if the two conditions below are met. Likewise, where a client enters into a transaction with the CCP, with a clearing member guaranteeing its performance, the client's exposures to the CCP may receive the treatment in paragraph 110 to 112 if the following two conditions are met:

(a) The offsetting transactions are identified by the CCP as client transactions and collateral to support them is held by the CCP and/or the clearing member, as applicable, under arrangements that prevent any losses to the client due to: (i) the default or insolvency of the clearing member, (ii) the default or insolvency of the clearing member's other clients, and (iii) the joint default or insolvency of the clearing member and any of its other clients.[8]

The client must be in a position to provide to the national supervisor, if requested, an independent, written and reasoned legal opinion that concludes that, in the event of legal challenge, the relevant courts and administrative authorities would find that the client would bear no losses on account of the insolvency of an intermediary clearing member or of any other clients of such intermediary under relevant law:

- the law of the jurisdiction(s) of the client, clearing member and CCP;
- if the foreign branch of the client, clearing member or CCP are involved, then also under the law of the jurisdiction(s) in which the branch are located;
- the law that governs the individual transactions and collateral; and
- the law that governs any contract or agreement necessary to meet this condition (a).

(b) Relevant laws, regulation, rules, contractual, or administrative arrangements provide that the offsetting transactions with the defaulted or insolvent clearing member are highly likely to continue to be indirectly transacted through the CCP, or by the CCP, should the clearing member default or become insolvent. In such circumstances, the client positions and collateral with the CCP will be transferred at market value unless the client requests to close out the position at market value.

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[7] The risk reduction in case the margin period of risk is greater than 5 days are as follows: 6 days – scalar=0.77; 7 days – scalar=0.84; 8 days – scalar=0.89; 9 days – scalar=0.95; 10 days – scalar=1.

[8] That is, upon the insolvency of the clearing member, there is no legal impediment (other than the need to obtain a court order to which the client is entitled) to the transfer of the collateral belonging to clients of a defaulting clearing member to the CCP, to one or more other surviving clearing members or to the client or the client's nominee. National supervisors should be consulted to determine whether this is achieved based on particular facts and such supervisors should consult and communicate with other supervisors via the "frequently asked questions" process to ensure consistency.

115. Where a client is not protected from losses in the case that the clearing member and another client of the clearing member jointly default or become jointly insolvent, but all other conditions in the preceding paragraph are met, a risk weight of 4% will apply to the client's exposure to the clearing member.

116. Where the bank is a client of the clearing member and the requirements in paragraphs 114 or 115 above are not met, the bank will capitalise its exposure (including potential CVA risk exposure) to the clearing member as a bilateral trade.

(iv) Treatment of posted collateral

117. In all cases, any assets or collateral posted must, from the perspective of the bank posting such collateral, receive the risk weights that otherwise applies to such assets or collateral under the capital adequacy framework, regardless of the fact that such assets have been posted as collateral. Where assets or collateral of a clearing member or client are posted with a CCP or a clearing member and are not held in a bankruptcy remote manner, the bank posting such assets or collateral must also recognise credit risk based upon the assets or collateral being exposed to risk of loss based on the creditworthiness of the entity[9] holding such assets or collateral.

118. Collateral posted by the clearing member (including cash, securities, other pledged assets, and excess initial or variation margin, also called overcollateralisation), that is held by a custodian,[10] and is bankruptcy remote from the CCP, is not subject to a capital requirement for counterparty credit risk exposure to such bankruptcy remote custodian.

119. Collateral posted by a client, that is held by a custodian, and is bankruptcy remote from the CCP, the clearing member and other clients, is not subject to a capital requirement for counterparty credit risk. If the collateral is held at the CCP on a client's behalf and is not held on a bankruptcy remote basis, a 2% risk-weight must be applied to the collateral if the conditions established in paragraph 114 of this Annex are met; or 4% if the conditions in paragraph 115 of this Annex are met.

B. Default fund exposures

120. Where a default fund is shared between products or types of business with settlement risk only (eg equities and bonds) and products or types of business which give rise to counterparty credit risk ie OTC derivatives, exchange traded derivatives or SFTs, all of the default fund contributions will receive the risk weight determined according to the formulae and methodology set forth below, without apportioning to different classes or types of business or products. However, where the default fund contributions from clearing members are segregated by product types and only accessible for specific product types, the capital requirements for those default fund exposures determined according to the formulae and methodology set forth below

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[9] Where the entity holding such assets or collateral is the CCP, a risk-weight of 2% applies to collateral included in the definition of trade exposures. The relevant risk-weight of the CCP will apply to assets or collateral posted for other purposes.

[10] In this paragraph, the word "custodian" may include a trustee, agent, pledgee, secured creditor or any other person that holds property in a way that does not give such person a beneficial interest in such property and will not result in such property being subject to legally-enforceable claims by such persons creditors, or to a court-ordered stay of the return of such property, should such person become insolvent or bankrupt.

must be calculated for each specific product giving rise to counterparty credit risk. In case the CCP's prefunded own resources are shared among product types, the CCP will have to allocate those funds to each of the calculations, in proportion to the respective product specific EAD.

121. Whenever a bank is required to capitalise for exposures arising from default fund contributions to a qualifying CCP, clearing member banks may apply one of the following approaches:

Method 1

122. Clearing member banks may apply a risk weight to their default fund contributions determined according to a risk sensitive formula that considers (i) the size and quality of a qualifying CCP's financial resources, (ii) the counterparty credit risk exposures of such CCP, and (iii) the application of such financial resources via the CCP's loss bearing waterfall, in the case of one or more clearing member defaults. The clearing member bank's risk sensitive capital requirement for its default fund contribution (K_{CMi}) must be calculated using the formulae and methodology set forth below. This calculation may be performed by a CCP, bank, supervisor or other body with access to the required data, as long as the conditions in paragraph 124 of this Annex are met.

123. The steps for calculation will be the following:

(1) First, calculate the CCP's hypothetical capital requirement due to its counterparty credit risk exposures to all of its clearing members.[11] This is calculated using the formula for K_{CCP}:

$$K_{CCP} = \sum_{\substack{clearing \\ members\ i}} max\left(EBRM_i - IM_i - DF_i; 0\right) \cdot RW \cdot Capital\ ratio$$

Where

RW is a risk weight of 20%.[12]

Capital ratio means 8%.

$\max(EBRM_i - IM_i - DF_i; 0)$ is the exposure amount of the CCP to CM 'i', with all values relating to the valuation at the end of the day before the margin called on the final margin call of that day is exchanged, and:

– $EBRM_i$ denoting the exposure value to clearing member 'i' before risk mitigation under CEM for derivatives or under the comprehensive approach of paragraphs 130 to 153 and paragraphs 166 to 169, and for SFTs under paragraphs 173 to 177; where, for the purposes of this calculation, variation margin

[11] K_{CCP} is a hypothetical capital requirement for a CCP, calculated on a consistent basis for the sole purpose of determining the capitalisation of clearing member default fund contributions; it does not represent the actual capital requirements for a CCP which may be determined by a CCP and its supervisor.

[12] The 20% risk weight is a minimum requirement. As with other parts of the capital adequacy framework, the national supervisor of a bank may increase the risk weight. An increase in such risk weight would be appropriate if, for example, the clearing members in a CCP are not highly rated. Any such increase in risk weight is to be communicated by the affected banks to the person completing this calculation.

that has been exchanged (before the margin called on the final margin call of that day) enters into the mark-to-market value of the transactions;

– IM_i being the initial margin collateral posted by the clearing member with the CCP;

– DF_i being the prefunded default fund contribution by the clearing member that will be applied upon such clearing member's default, either along with or immediately following such member's initial margin, to reduce the CCP loss.

As regards the calculation in this first step:

(i) For clarity, each exposure amount is the counterparty credit risk exposure amount a CCP has to a clearing member, calculated as a bilateral trade exposure for OTC derivatives and exchange traded derivatives either under paragraphs 186 and 187 using Annex 4, Section VII Current Exposure Method (CEM), or under paragraph 176 and paragraph 151 standard supervisory haircuts for SFTs. The holding periods for SFT calculations in paragraph 167 remain even if more than 5000 trades are within one netting set, ie the first bullet point of paragraph 41(i) of this Annex, included by the Basel III framework, will not apply in this context.

(ii) For the purposes of calculating K_{CCP} via CEM the formula in Annex 4, Section VII, 96(iv) will be replaced by $A_{Net} = 0.15*A_{Gross} + 0.85*NGR*A_{Gross}$, where, for the purposes of this calculation, the numerator of the NGR is $EBRM_i$ - as described above - without the CEM add-on in case of OTC derivatives, and the denominator is the gross replacement cost.[13] Moreover, for the purposes of this calculation, the NGR must be calculated on a counterparty by counterparty basis (ie the other option of paragraph 96(iv) of this Annex in footnote 252 of the Basel framework does not apply). Further, if NGR cannot be calculated according to paragraph 96(iv) of this Annex, a transitional default value NGR value of 0.30 shall be applied for this calculation, until 31 March 2013. After this transitional period, the fallback approach established in paragraph 127 of this Annex will apply.

(iii) The PFE calculation under the CEM for options and swaptions that are transacted through a CCP is adjusted by multiplying the notional amount of the contract by the absolute value of the option's delta, which is calculated according to paragraphs 77 and 78 of this Annex.

(iv) The netting sets that are applicable to regulated clearing members are the same as those referred to in paragraph 112 of this Annex. For all other clearing members, they need to follow the netting rules as laid out by the CCP based upon notification of each of its clearing members. The national supervisor can demand more granular netting sets than laid out by the CCP.

[13] If the minimum variation margin settlement frequency is daily, but a CCP calls margin intraday, then NGR is to be calculated just before margin is actually exchanged at the end of the day. NGR is expected to be non-zero.

(2) Second, calculate the aggregate capital requirement for all clearing members (prior to the concentration and granularity adjustment), assuming a scenario where two average clearing members default and, therefore, their default fund contributions are not available to mutualise losses. This scenario is incorporated in the following risk-sensitive formula:

$$K_{CM}^{*} = \begin{cases} c_2 \cdot \mu \cdot \left(K_{CCP} - DF'\right) + c_2 \cdot DF_{CM}' & if \quad DF' < K_{CCP} \quad (i) \\ c_2 \cdot (K_{CCP} - DF_{CCP}) + c_1 \cdot \left(DF' - K_{CCP}\right) & if \quad DF_{CCP} < K_{CCP} \leq DF' \quad (ii) \\ c_1 \cdot DF_{CM}' & if \quad K_{CCP} \leq DF_{CCP} \quad (iii) \end{cases}$$

Where

K_{CM}^{*} = Aggregate capital requirement on default fund contributions from all clearing members prior to the application of the granularity and concentration adjustment.

DF_{CCP} = **CCP's prefunded own resources** (eg contributed capital, retained earnings, etc), which are required to be used by CCP to cover its losses before clearing members' default fund contributions are used to cover losses

DF_{CM}' = Prefunded **default fund contributions from surviving clearing members** available to mutualise losses under the assumed scenario. Specifically:

$$DF_{CM}' = DF_{CM} - 2 \cdot \overline{DF_i},$$

where $\overline{DF_i}$ is the average default fund contribution.

DF' = **Total prefunded default fund contributions** available to mutualise losses under the assumed scenario. Specifically:

$$DF' = DF_{CCP} + DF_{CM}'$$

c_1 = A decreasing capital factor, between 0.16% and 1.6%, applied to the excess prefunded default funds provided by clearing members (DF_{CM}):

$$c_1 = Max\left\{\frac{1.6\%}{\left(DF'/K_{CCP}\right)^{0.3}}; 0.16\%\right\}$$

c_2 = 100%; a capital factor applied when a CCP's own resources (DF_{CCP}) are less than such CCP's hypothetical capital requirements (K_{CCP}), and, as a result, the clearing member default funds are expected to assist in the coverage of the CCP's hypothetical capital requirements (K_{CCP}).

μ = 1.2; an exposure scalar of 1.2 is applied in respect of the unfunded part of a CCP's hypothetical capital requirements (K_{CCP}).

Equation (i) applies when a CCP's total prefunded default fund contributions (DF) are less than the CCP's hypothetical capital requirements (K_{CCP}). In such case, the clearing members unfunded default fund commitments are expected to bear such loss and the exposure for a clearing member bank is, due to the potential failure of other members to make additional default fund contributions when called, expected to be greater than the exposure if all default funds had been prefunded.[14] Therefore, an exposure scalar (μ) of 1.2 is applied in respect of the unfunded part of K_{CCP}, to reflect the bank's greater exposure arising from reliance on unfunded default fund contributions. If a part of the CCP's own financial resources available to cover losses is used after all clearing members' default fund contributions (DF_{CM}) are used to cover losses, then this part of the CCP's contribution to losses should be included as part of the total default fund (DF).

Equation (ii) applies when a CCP's own resource contributions to losses (DF_{CCP}) and the clearing members' default contributions (DF_{CM}), are both required to cover the CCP's hypothetical capital (K_{CCP}), but are, in the aggregate, greater than the CCP's hypothetical capital requirements K_{CCP}. As noted in the above definition, for DF_{CCP} to be included in the total default fund available to mutualise losses (DF'), the CCP's own resources must be used before DF_{CM}. If that is not the case and a part of CCP's own financial resources is used in combination, on a pro rata or formulaic basis, with the clearing members' default fund contributions (DF_{CM}) to cover CCP losses, then this equation needs to be adapted, in consultation with national supervisors, such that this part of CCP contribution is treated just like a clearing member's default fund contribution.

Equation (iii) applies when a qualifying CCP's own financial resource contribution to loss (DF_{CCP}) is used first in the waterfall, and is greater than the CCP's hypothetical capital (K_{CCP}), so that the CCP's own financial resources are expected to bear all of the CCP's losses before the clearing members' default fund contributions (DF_{CM}) are called upon to bear losses.

(3) Finally, calculate the capital requirement for an individual clearing member 'i' (K_{CM_i}) by distributing K^*_{CM} to individual clearing members in proportion to the individual clearing member's share of the total prefunded default fund

[14] Where a CCP's total prefunded default fund contributions (DF) are not sufficient to cover the CCP's hypothetical capital requirements (K_{CCP}), and clearing members do not have an obligation to contribute more default funds to offset a shortfall in CCP loss-absorbing resources, such clearing members are still subject to an additional capital charge. The reason is that their exposures to such CCP are, in fact, riskier than would be the case if the CCP had access to adequate resources to cover its hypothetical capital requirements. This reflects the underlying assumption that CCPs, through own resources and member default funds, are expected to have adequate loss-bearing, mutualised, financial resources to make defaults on their exposures highly unlikely. If such loss-bearing resources are inadequate, the members' exposures are bearing additional risk and require additional capital.

contributions;[15] and taking into account the CCP granularity (through the factor that accounts for the number of members 'N') and the CCP concentration (through the factor 'β').

$$K_{CM_i} = \left(1 + \beta \cdot \frac{N}{N-2}\right) \cdot \frac{DF_i}{DF_{CM}} \cdot K_{CM}^{*},$$

Where

β = $\frac{A_{Net,1} + A_{Net,2}}{\sum_i A_{Net,i}}$, where subscripts 1 and 2 denote the clearing members with the two largest A_{Net} values. For OTC derivatives A_{Net} is defined as in step 1 (ie A_{Net} = 0.15*A_{Gross} + 0.85*NGR*A_{Gross}); and for SFTs, A_{Net} will be replaced by $E^*H_e + C^*(H_c+H_{fx})$, as defined in paragraphs 147 to 153.

N = Number of clearing members

DF_i = Prefunded default fund contribution from an individual clearing member 'i'

DF_{CM} = Prefunded default fund contributions from all clearing members (or any other member contributed financial resources that are available to bear mutualised CCP losses).

Alternatively, where the above allocation method fails because of the fact that the CCP does not have prefunded default fund contributions, the following hierarchy of conservative allocation method applies:

1. Allocate K_{CM}^{*} based upon each CM's proportionate liability for default fund calls (ie unfunded DF commitment);
2. In the case such an allocation is not determinable; allocate K_{CM}^{*} based upon the size of each CM's posted IM.

These allocation approaches would replace (DF_i / DF_{CM}) in the calculation of $K_{CMi.}$

124. The CCP, bank, supervisor or other body with access to the required data, must make a calculation of $K_{CCP,}$ DF_{CM}, and DF_{CCP} in such a way to permit the supervisor of the CCP to oversee those calculations, and it must share sufficient information of the calculation results to permit each clearing member to calculate their capital requirement for the default fund and for the bank supervisor of such clearing member to review and confirm such calculations. K_{CCP} should be calculated on a quarterly basis at a minimum; although national supervisors may require more frequent calculations in case of material changes (such as the CCP clearing a new

[15] Such allocation method is based on the assumption that losses would be allocated proportionate to prefunded DF contributions of CMs. If the CCP practice differs, the allocation method should be adjusted in consultation with national supervisors.

product). The CCP, bank, supervisor or other body that did the calculations should make available to the home supervisor of any bank clearing member sufficient aggregate information about the composition of the CCP's exposures to clearing members and information provided to the clearing member for the purposes of the calculation of $K_{CCP,}$ DF_{CM}, and DF_{CCP}. Such information should be provided no less frequently than the home bank supervisor would require for monitoring the risk of the clearing member that it supervises. K_{CCP} and K_{CMi} must be recalculated at least quarterly, and should also be recalculated when there are material changes to the number or exposure of cleared transactions or material changes to the financial resources of the CCP.

Method 2

125. Clearing member banks may apply a risk-weight of 1250% to its default fund exposures to the CCP, subject to an overall cap on the risk-weighted assets from all its exposures to the CCP (ie including trade exposures) equal to 20% times the trade exposures to the CCP. More specifically, under this approach, the Risk Weighted Assets (RWA) for both bank *i*'s trade and default fund exposures to each CCP are equal to:[16]

$$Min \{(2\% * TE_i + 1250\% * DF_i); (20\% * TE_i)\}$$

where

- TE_i is bank *i*'s trade exposure to the CCP, as measured by the bank according to paragraphs 110 to 112 of this Annex; and
- DF_i is bank *i*'s pre-funded contribution to the CCP's default fund.

Exposures to Non-qualifying CCPs

126. Banks must apply the Standardised Approach for credit risk in the main framework, according to the category of the counterparty, to their trade exposure to a non-qualifying CCP.

127. Banks must apply a risk weight of 1250% to their default fund contributions to a non-qualifying CCP. For the purposes of this paragraph, the default fund contributions of such banks will include both the funded and the unfunded contributions which are liable to be paid should the CCP so require. Where there is a liability for unfunded contributions (ie unlimited binding commitments) the national supervisor should determine in its Pillar 2 assessments the amount of unfunded commitments to which a 1250% risk weight should apply to.

[16] Under this approach the 2% risk weight on trade exposures given by paragraph 110 does not apply as it is included in the equation in paragraph 125.

Other amendments to the Basel framework outside Annex 4

Paragraph 256 is **amended** and a **new paragraph** after paragraph 262 is **added** within Basel II with regard to IRB partial use of trade exposures to QCCPs (changes shown bold and underlined):

> ***3. Adoption of the IRB approach across asset classes***
>
> 256. Once a bank adopts an IRB approach for part of its holdings, it is expected to extend it across the entire banking group, **with the exception of the banking group's exposures to CCPs treated under Annex 4, Section IX**. The Committee recognises however, that, for many banks, it may not be practicable for various reasons to implement the IRB approach across all material asset classes and business units at the same time. Furthermore, once on IRB, data limitations may mean that banks can meet the standards for the use of own estimates of LGD and EAD for some but not all of their asset classes/business units at the same time.
>
> **262(i). Irrespective of the materiality, exposures to CCPs arising from OTC derivatives, exchange traded derivatives transactions and SFTs must be treated according to the dedicated treatment laid down in Annex 4, Section IX. When assessing the materiality for the purposes of paragraph 259, the IRB coverage measure used must not be affected by the bank's amount of exposures to CCPs treated under Annex 4, Section IX - ie such exposures must be excluded from both the numerator and the denominator of the IRB coverage ratio used.**

Annex 3, part 1, paragraphs 3 and 4 are **amended** (changes shown bold and underlined):

> 3. The following capital treatment is applicable to all transactions on securities, foreign exchange instruments, and commodities that give rise to a risk of delayed settlement or delivery. This includes transactions through recognised clearing houses **and central counterparties** that are subject to daily mark-to-market and payment of daily variation margins and that involve a mismatched trade.[17] Repurchase and reverse-repurchase agreements as well as securities lending and borrowing that have failed to settle are excluded from this capital treatment.
>
> 4. In cases of a system wide failure of a settlement, ~~or~~ clearing system **or central counterparty**, a national supervisor may use its discretion to waive capital charges until the situation is rectified.

[17] An exposure value of zero can be attributed to payment transactions (eg funds transfer transactions) and other spot transactions that are outstanding with a central counterparty (CCP) (eg a clearing house), when the CCP's counterparty credit risk exposures with all participants in its arrangements are fully collateralised on a daily basis.