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Konzentrationslimite

Concentration Limits

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Contact

European Commodity Clearing AG

Clearing & Settlement

Phone: +49 341 24680-444

E-mail: clearing@ecc.de

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1. Regulatory Background

According to Regulation 648/2012 (EMIR) Article 46 and the Regulatory Technical Standards (RTS) 153/2013 Article 42 a CCP shall establish and implement policies and procedures to ensure that the collateral remains sufficiently diversified to allow its liquidation within a defined holding period without a significant market impact.

2. Concentration Limits

2.1. Overview

ECC determines concentration limits for margin and default fund requirements separately. Concentration limits for margin requirements are calculated per clearing member group. A clearing member group is formed if clearing members have a close link[1] that makes it likely that a default of one clearing member leads to a default of the linked clearing member. Concentration limits for the default fund requirement are calculated for the default fund as a whole due to the fact that the default fund covers losses of any clearing member.

ECC has a collateral policy which establishes concentration limits at the level of:

(i) individual issuers

(ii) country of issuer

(iii) currency (except EUR).

If a concentration limit is violated, ECC's Clearing & Settlement team will contact the clearing member who submitted collateral leading to the breach to initiate a replacement of collateral.

The collateral policy and procedures are reviewed at least annually and whenever a material change occurs that materially affects the risk exposure.

2.2. Details

Limits are set depending on the respective credit rating of the issuer, the issuer’s country of domicile and the country related to the currency of the collateral. ECC uses ratings by Fitch, S&P and Moody's as well as an internal rating. If multiple ratings exist ECC uses the second worst rating.

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[1] A close link might be a majority holding of shares or explicit guarantees.

If the rating is below AAA, ECC determines the shortfall (in EUR) that would occur if the issuer, the issuer's country of domicile or the country which is related to a specific currency defaulted (so called "Concentrated Collateral"). The ratio between this shortfall and the margin requirement is limited to 20%:

$$\frac{\text{MarginRequirement}_{\text{CM group}} - (\text{TotalMarginCollateral}_{\text{CM group}} - \text{ConcentratedCollateral}_{\text{CM group}})}{\text{MarginRequirement}_{\text{CM group}}} \leq 20\%$$

Hence the remaining collateral covers at least 80% of the margin requirement. Each clearing member's collateral portfolio has to satisfy all three concentration limit levels. The same calculation is applied to the default fund requirement as a whole.

If different issuers have a close link that makes it likely that the default of one of the issuers or a common parent company leads to a simultaneous default of the different issuers, those issuers are considered as one group. ECC calculates concentration risk based on that group instead of the single issuer. If collateral is guaranteed, concentration risk is calculated based on the guarantor.

3. Examples

3.1. Example A

The following table shows the example collateral portfolio of an imaginary CM regarding its margin requirement. The total collateral is 525 and the margin requirement is 500.

Issuer	*Rating Issuer*	*Guarantor*	*Rating Guarantor*	*Issuer Country*	*Rating Country*	*Currency*	*Rating Currency*	*Collateral Amount*
A	AA	F	AAA	G	AAA	EUR	-	25
B	A	F	AAA	G	AAA	EUR	-	125
C	AA+	-	-	H	AA-	EUR	-	25
D	AA	-	-	G	AAA	EUR	-	175
E	AAA	-	-	I	AA	other	AA	175

Limits on issuer level:

Entity	*Rating Entity*	*Concentrated Collateral*	*Shortfall*	*Ratio Shortfall / Margin Requirement*	*Limit*	*Check*
F	AAA	150	125	25%	-	OK
C	AA+	25	0	0%	20%	OK
D	AA	175	150	30%	20%	Not OK
E	AAA	175	150	30%	-	OK

Explanation: Limits are calculated based on the guarantor if existent and based on the issuer otherwise. In this example, the securities of the issuers A and B are guaranteed by F and thus the limit is calculated regarding F. If the rating of the entity is AAA, no limits are applied. If the rating is below AAA, the ratio between shortfall (see formula above) and margin requirement must be lower than 20%. Hence the collateral of issuer D is not within the defined limits.

Limits on country level:

Issuer Country	*Rating Country*	*Critical Collateral*	*Shortfall*	*Ratio Shortfall / Margin Requirement*	*Limit*	*Check*
G	AAA	325	300	60%	-	OK
H	AA-	25	0	0%	20%	OK
I	AA	175	150	30%	20%	Not OK

Explanation: Limits are calculated based on the issuer's country of domicile. If the rating of the country is AAA, no limits are applied. If the rating is below AAA, the ratio between shortfall (see formula above) and margin requirement must be lower than 20%. Hence the collateral of issuer E is not within the defined limits.

Limits on currency level:

Currency	*Rating Currency*	*Critical Collateral*	*Shortfall*	*Ratio Shortfall / Margin Requirement*	*Limit*	*Check*
EUR	-	350	325	65%	-	OK
other	AA	175	150	30%	20%	Not OK

Explanation: If the rating of the respective country is AAA or the currency is EUR, no limits are applied. If the rating is below AAA, the ratio between shortfall (see formula above) and margin requirement must be lower than 20%. The collateral of issuer E is not within the defined limits.

3.2. Example B

The following table shows the example collateral portfolio of an imaginary CM regarding its margin requirement. The total collateral is 300 and the margin requirement is 300.

Issuer	*Rating Issuer*	*Guarantor*	*Rating Guarantor*	*Issuer Country*	*Rating Country*	*Currency*	*Rating Currency*	*Collateral Amount*
C	AA+	-	-	H	AA-	EUR	-	100
CASH						EUR	-	200

Limits on issuer and country level – currency level is not necessary because all collateral is issued in EUR:

Entity	*Rating Entity*	*Critical Collateral*	*Shortfall*	*Ratio Shortfall / Margin Requirement*	*Limit*	*Check*
C	AA+	100	100	33%	20%	Not OK

Issuer Country	*Rating Country*	*Critical Collateral*	*Shortfall*	*Ratio Shortfall / Margin Requirement*	*Limit*	*Check*
H	AA-	100	100	33%	20%	Not OK

Explanation: If the rating of the entity/ country is AAA, no limits are applied. If the respective rating is below AAA, the ratio between shortfall (see formula above) and margin requirement must be lower than 20%. Hence the collateral of issuer C is not within the defined limits.