

# Public Information on Default Fund Calculation

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Document Title	EMIR* Article	RTS** Article	Document Class
Public Information on Default Fund Calculation	42, 43	29-31	To be published on CCP.A website

\*EMIR = Regulation (EU) 648/2012, \*\*RTS 153/2013 = Delegated Regulation (EU) 153/2013

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## Document Information

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Document Owner	<b>Chief Risk Officer (CRO)</b>
Document Approver	<b>General Management</b>

**Document Review Cycle:** yearly / on occasion

### **Change Log**<sup>1</sup>

<b>Version</b>	<b>Date</b>	<b>Change Description</b>
<b>V3.2</b>	16.7.2014	4.1. update on selection of 3 Clearing Members (max. loss)
<b>V3.3</b>	11.06.2015	Annual review and minor corrections.
<b>V3.4</b>	15.11.2016	Annual review: Editorial changes
<b>V3.5</b>	20.10.2017	Annual review: Minor editorial changes
<b>V3.6</b>	27.11.2018	Annual review: Minor editorial changes
<b>V3.7</b>	29.06.2020	Annual review: Adaptions related to implementation of new clearing system

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<sup>1</sup> The Change log is only used for final versions.

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## 1 Introduction

CCP.A maintains a pre-funded Default Fund to cover losses that exceed the losses covered by the margin requirements in case of a Clearing Member's default. In order to determine the size of the Default Fund, CCP.A has developed scenarios of extreme but plausible market conditions. Such scenarios of extreme events include observed periods of high volatilities, hypothetical events as well as unexpected sells of assets and a fast decrease of market liquidity.

This document describes the calculation of the Default Fund size considering the stress scenarios, and the calculation of the Default Fund contribution for Clearing Members as well as the additional, dedicated financial resources to be provided by CCP.A.

CCP.A publishes details of the default waterfall such as total size of the Default Fund and the additional resources of CCP.A (skin-in-the-game) in the CPMI-IOSCO templates for CCPs on its web site: <https://www.ccpa.at/cpmi-iosco/>.

## 2 Default Fund Calculation

### 2.1 Determination of the Default Fund Size

Pursuant to Art 42 EMIR, the Default Fund shall at least enable the CCP to withstand, under extreme but plausible market conditions, the default of

- the Clearing Member to which it has the largest exposure or of
- the second and third largest Clearing Members, if the sum of their exposures is larger.

CCP.A maintains a common Default Fund for all cash market instruments.

To determine the size of the Default Fund ("*NormSize*"), CCP.A applies the following procedure on a regular basis.

1. Calculation of the daily difference between margin in stressed conditions and margin in normal conditions per Clearing Member in the past month.
2. Identification of the maximum loss per Clearing Member, sorting in descending order and selection of the 3 Clearing Members with the largest maximum loss. CCP.A sizes the Default Fund to cover the maximum loss caused by the default of the 3 Clearing Members with the largest risk exposure.
3. Estimation of necessary resources to cover default of a Clearing Member on cash market:
  - For each of the selected Clearing Members, the margin amount required to cover the loss resulting from the open positions in above described stress scenarios is calculated. This is done on a "per day basis" during a time period (e.g. 1 months), further referred to as "look back period stress test" using the real portfolio of each day.
  - The difference between the margin requirement under stressed conditions per day and the margin requirement calculated on the same date under normal conditions gives the necessary resources to close out a cash market position under stressed scenarios. The results are then sorted in descending order, thus identifying the maximum loss in case of default of the Clearing Member during the look back period stress test.
  - The size of the Default Fund is determined as the total sum of the maximum loss in case of default of the 3 selected Clearing Members.
4. Estimation of Default Fund size:
  - The sum of the amounts calculated determines the necessary size of the Default Fund ("*NormSize*").

## 2.2 Minimum Size of Default Fund

Pursuant to Art 42 (1) EMIR CCP.A's management shall set a sound limit for the minimum size of the Default Fund ("*MinSize*"). The Default Fund shall never fall below that limit under any circumstances.

This amount will be calculated at least once a year taking into account the number of Clearing Members, their roles and the minimum contribution per Clearing Member ("*MinCon*"):

$$MinSize = \sum_i MinCon_i$$

## 2.3 Individual Contributions of Clearing Members

The Default Fund contribution ("*DFC*") of a given Clearing Member ("*i*") is calculated based on a minimum amount ("*MinCon*") and a dynamic component ("*DyCon*"):

$$DFC_i := \max(MinCon_i; DyCon_i)$$

Whereas the total size of the Default Fund is

$$NormSize = \sum_i DFC_i$$

### 2.3.1 Minimum Contribution to the Default Fund

The minimum contribution (*MinCon*) to the Default Fund of a Clearing Member is depending on the clearing activity (i.e. role) of the Clearing Member. It represents the minimum contribution each Clearing Member must contribute to the Default Fund:

- 50.000 € per Direct Clearing Member of Cash Market
- 250.000 € per General Clearing Member on Cash Market

The minimum contribution from Clearing Members operating under different roles is defined by role with the highest contribution requirement.

### 2.3.2 Dynamic Contribution to the Default Fund

The dynamic contribution component ("*DyCon*") of Clearing Members is recalculated at least on a quarterly basis.

Subsequently, CCP.A compares the dynamic contribution component with the minimum contribution and calculates the total contribution to be requested from each individual Clearing Member.

The amount debited/credited to each Clearing Member is the difference between the current calculation and the previous calculation.

The dynamic component is calculated according the following specification:

1. Computing the necessary Default Fund size according to section 1.1
2. The remaining Default Fund size is allocated to the Clearing Members according to their exposure during the margin look back period L pursuant to section 1.5. The exposure ratio per member is calculated by dividing the average individual margin requirement by the sum of the margin requirement of all members.
3. *DyCon* of a Clearing Member is computed by multiplying the resulting percentage with the total Default Fund size.
4. The contributions  $DFC_i$  of each Clearing Member to the Default Fund is the maximum of the minimum contribution amount *MinCon* and the respective dynamic contribution *DyCon*.

## 2.4 Additional, Dedicated Financial Resources by CCP.A

According to EMIR Art 43 a CCP shall maintain dedicated financial resources. These dedicated resources have to be freely available to CCP.A and shall, together with the Default Fund, cover the default of the 2 largest Clearing Members:

- as CCP.A's Default Fund covers already the default of the 3 largest Clearing Members, this requirement is fulfilled

Art 45 (4) EMIR and Art 35 RTS require a CCP to keep at least 25% of the minimum capital (Art 35 (2) RTS) as additional resource as waterfall facility and to cover its own "skin-in-the-game":

- CCP.A has reserved 25% of 7.5 Mio € = 1.875.000 € as dedicated resources in its balance sheet

## 2.5 Parameters needed

The following parameters are used for calculating the Default Fund and the contributions per Clearing Member:

- L : look-back period for margin under normal conditions = 6 months
- S : look-back period for analysis of stress test results = 1 month
- Calculation period and frequency of Default Fund size update: at least quarterly