

# Clearing Notice SIX x-clear Ltd

xcl-n-509

## **New default fund distribution for the derivatives segment**

### **1.0 Overview**

The individual default fund contribution in the derivatives segment was previously determined by charging the prevailing minimum contribution for all members, i.e. CHF 5 million for GCMs and CHF 0.5 million for ICMs. Anticipating the 2017 membership changes and with observed changes of trading patterns, the default fund contribution methodology will be updated accordingly.

This change will align the distribution methodologies of the default fund equity and derivative segment, which is in line with the latest external and internal risk principles. The current back testing and forecasting indicates no need to change the overall default fund segment derivatives size; therefore, the current size of CHF 28.5 million will remain at this stage.

The new methodology for the default fund contribution is based on a combination of contributed risk, i.e. minimum contribution with regards to the membership category (ICM or GCM), the median of the initial margin (MIM) over the last 30 business days or over the last 90 business days, whichever is higher, and the credit rating.

Additionally, a new paragraph for the top-up contribution which was introduced with regards to the amendment of financial collateral agreements for margins and for default funds in 2016 will be added in the Clearing Terms.

### **2.0 Effective date**

Thursday, 1 February 2018.

### **3.0 Impact on Members**

In case of the biggest x-clear Member, we expect a slight increase of the individual default fund contribution during the start of the new methodology, which is going to be determined by relative changes of the median of the initial margin and credit rating per Member in future.

### **4.0 Changes in Clearing Terms**

The paragraphs 11.1 *Calculation of the Default Fund Contribution* and 11.2 *Top-up Contribution* will be replaced by the following new paragraphs:

#### **11.0 Default Funds**

*Members are required to participate in and contribute to the Default Fund of x-clear.*

*x-clear has established one single Default Fund with several ring-fenced Default Fund Segments along the following product lines:*

- a. Cash Markets (equities/bonds)*
- b. Derivatives (derivatives/securities lending & borrowing).*

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*In accordance with the Trading Platform Product segment(s) which the Member is clearing through x-clear, it shall be assigned to the corresponding segment of the Default Fund. The decision criteria for assigning a Member to either of the segments is dependent on the Derivatives Segment. If the Member is having derivatives cleared, it will be assigned to the Derivatives Segment and its Default Fund Segment, irrespective of its using Clearing services in other segments.*

*The total size of the Default Fund is the sum of the sizes of the respective Default Fund segments. The sizes of the Default Fund segments are defined to cover the default of the two largest participants or participant groups ("cover 2 principle") of each Default Fund segment. The current Default Fund Segment sizes are published within the scope of the CPMI-IOSCO quantitative reporting (16.1) on the official website of SIX Securities Services: [www.six-securities-services.com](http://www.six-securities-services.com) > Clearing > About SIX x-clear Ltd.*

*For CLARA users of the Norwegian Branch, Default Fund contributions in the form of cash are transferred under an Irregular Pledge, while Default Fund contributions in the form of securities are made available by a regular or an irregular pledge in favour of x-clear.*

### **11.1 Calculation of the Default Fund Contribution**

*The monthly amount of the Default Fund Contribution payable by the Member into the Cash Markets or Derivatives Default Fund Segment of x-clear is dependent on the membership category (x-clear ICM or x-clear GCM) and on the median of the Initial Margin (MIM) over the last 30 Business Days or over the last 90 Business Days, whichever is higher, and the credit rating. The respective MIM is calculated monthly on the daily EOD open amount.*

*The following minimum contributions apply (with no upper cap limit) based on the membership category:*

x-clear ICM: Swiss francs (CHF) 0.5 million  
 x-clear GCM: Swiss francs (CHF) 5.0 million

### **Optimization of Default Fund Distribution**

*The following minimization (under constraints) of loss function with respect to Default Fund Contributions  $DF_c$  will be used for the optimization of the individual Default Fund Contribution by taking into account the Member's default probability:*

$$L = \sum_{d=1}^M \frac{1}{N-d} \sum_c^{\square} q_c \bar{q}_c [PnL_c^{Sim} - IM_c - DF_c]^+$$

*Parameters*

*N: total number of Members*

*d: number of defaulting parties*

*M: maximum number of defaulting parties; in cover 2 setup M=2*

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$c$ : possible combinations of  $d$  defaults,  $N - d$  members are non-defaulting

$Q_c = \prod q_i$  probability of common defaults, PD aligned with SIX credit risk model

$\bar{Q}_c$ : probability of non-defaults

$PnL^{Sim}$ : simulated profits and losses adapted to Member's risk profile

$[A]^+ = \max(A, 0)$ , optionality of possible losses

All Default Fund Contributions are rounded up to the next Swiss franc (CHF) 0.1 million increment.

An upfront Default Fund Contribution defined by x-clear will be required for the initial phases of the Clearing of Trading Platform Transactions. For new Members, x-clear may determine upfront Default Fund Contributions based on expected Clearing volumes.

The value of the Securities and/or currencies (in relation to cash) deposited by way of a Default Fund Contribution is calculated on the basis of their current market value after applying the applicable Haircut (as published on the x-clear website) and not on the nominal value of the Securities or currencies deposited.

The types of Permissible Collateral and their respective values are specified in sub-chapter 13.3.1 Permissible Collateral of the Clearing terms of SIX x-clear Ltd for Norwegian Branch.

Additionally a new paragraph with regards to the top-up contribution will be published in the following section:

### **11.2 Top-up Contribution**

In cases of an Extraordinary Default causing a loss which exceeds that Default Fund Segment's current size ("Exceeding Drawdown"), a Top-up contribution as coverage for such an exceeding loss as defined in the Amendment Agreement to Pledge Agreements section 3.2.2 Specific conditions for Top-up Contribution and the respective provisions of the Contractual Relationship will be requested from non-Defaulting Members. The Top-up Contribution will only come into effect as a resource in the event of a very large loss as a result of one or several Member Default(s) – but only if all preceding layers of collateral (in particular the entire Default Fund Segment) have been exhausted.

The amount of the Top-up Contribution is limited to the amount of the individual Default Fund Contribution by the Member to the entire Default Fund Segment at the time of the Default leading to an exceeding loss beyond the size of the Default Fund Segment ("Exceeding Drawdown").

The Top-up Contribution must be provided by the Members within three Business Days.



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### 5.0 Contact

For further assistance and more detailed information, please contact the Risk Operations team of x-clear under: [xclearops.no@six-securities-services.com](mailto:xclearops.no@six-securities-services.com).