



**To the Members of SIX x-clear Ltd
(Norwegian Branch)**

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Kontaktperson:

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**SIX x-clear Ltd (Norwegian Branch):
Consultations of Members about amendments of Financial Collateral
Agreements for Margins and for Default Funds**

Dear Madams / Sirs

We would like to advise Members that SIX x-clear intends to amend its Financial Collateral Agreements for Margins and for Default Funds by complementing them with additional components and explicit declarations of usage as they have become a standard for European CCPs.

As a supplement to the Financial Collateral Agreements we are submitting to you the attached Amendment Agreement for consultation in accordance with clause 3.3 of the Contract for Clearing Services.

Explanations to the single amendments

The following new arrangements shall enhance SIX x-clear's system of collaterals for Members' exposures and at the same time provide additional clarity to such collaterals usage.

A. Amendments for both Financial Collateral Agreements (Margins and Default Funds)

a. Usage for liquidity support to SIX x-clear Ltd

At the time between receipt of the collateral until the occurrence of the contractual release and restitution claim to the Member (usually T + 2) SIX x-clear Ltd may also use the liquid funds obtained as cash collateral or convert the Intermediated Securities by a respective agreement (Repurchase Agreement) to liquid funds and use it on a short term basis. Due to the title transfer ("transfer of title") this competence of SIX x-clear Ltd could be considered as legally comprised. Nevertheless, SIX x-clear Ltd deems it appropriate to take into account the security nature of the collaterals received and will explicitly agree this purpose with the Member.



b. Usage for investments by SIX x-clear Ltd

For this form of usage the considerations made in clause a. above apply analogously. Again, SIX x-clear Ltd wishes to determine explicitly by contractual arrangement for the sake of clarity its competence to invest the collateral received on a short term basis. The relevant rules will be defined in the "Investment Regulations" and – after consent by the regulatory authorities – be made available to the Members for information.

B. Amendments (enhancement) of Financial Collateral Agreement for Default Funds

a. Structure of the Default Fund

SIX x-clear wishes to inform Members about its current and future structure of the Default Fund as follows:

- SIX x-clear will have one single Default Fund in place only with the following Default Fund Segments along product lines:
 - Cash Markets (equities/bonds)
 - Derivatives (derivatives/securities lending & borrowing)
- The sizes of the Default Fund Segments are defined to cover the default of the two largest participants or participant groups (cover 2 principle).
- Further details will be defined in the Contractual Relationship.

b. Default Fund Replenishment Contribution

In cases of Extraordinary Defaults of a Member SIX x-clear Ltd Norwegian Branch has been requiring clearly less extensive collateral support from its Members compared to its peer CCPs and even in relation to the Swiss main office. The current solution shall therefore be amended and the following enhancements, which have also been endorsed by the regulators, shall be implemented:

- Any drawdown – be it partial or full – of the Default Fund Segment affected by an x-clear Member Default but which does not exceed the Default Fund's current size gives rise to an obligation on each non-Defaulting x-clear Member to replenish this Default Fund Segment by an individual Default Fund Replenishment Contribution and thus, together with the other non-defaulting Members, restore its total amount to the level as required at the time of its reassessment ("Replenishment Obligation"). Reassessment will be effected 5 Business Days prior to the end of the Cooling-off Period (as defined hereafter), i.e. on Business Day 15 after the Extraordinary Default.
- The Replenishment Obligation of the respective Default Fund Segment will continue throughout the entire Membership of a Member.
- Following any full or partial drawdown of a Default Fund Segment a grace period ("Cooling-off Period") sets in for a time of 20 Business Days. During this period non-Defaulting Members are relieved from making Supplementary Contributions in respect of that drawdown.



c. Top-up Contribution

In cases of an Extraordinary Default which even exceeds the Default Fund Segment's current size SIX x-clear might be exposed fully to such losses. Regulators therefore ask CCPs to establish additional coverage to shield their own capital base.

We intend to introduce an additional layer in the system of collateral ("waterfall of resources") – the so-called "Top-up Contribution". This element would come into effect as a resource in the event of a very large loss (Default) or of several major defaults – but only if all preceding layers of collateral (in particular the entire Default Fund Segment) have been exhausted. The Top-up Contribution could therefore be claimed for each exceeding (uncovered) loss in the following two possible basic scenarios:

- An individual Default exceeds all preceding resources (pursuant to chapter 18 GTC), i.e. the Defaulting Member's own Margins, the Defaulting Member's own Default Fund Contribution, the Dedicated Capital Contribution of SIX x-clear Ltd as well as the entire amount of the aggregated Default Fund Contributions of the non-defaulting Members to the relevant Default Fund Segment;

Numerical example:

Dedicated Capital Contribution of SIX x-clear AG ("skin in the game") = 22; Default Fund Segment = 300; total loss from a Default exceeds the Default Fund Segment by 50. A Top-up Contribution of 50 is requested from the remaining Members.

- One or more additional Defaults that impact the Default Fund Segment occur within the ongoing Cooling-off Period (i.e. the 20 Business Days period in which a Default Fund Segment that has been used in full or in part does not have to be replenished). The loss from the ongoing Default Procedure and the newly incurred loss(es) resulting from this/these further Default(s) lead to a combined loss that exceeds the remainder of the Default Fund Segment not yet used. ***(See also graphical scheme as depicted in the annex)***

Numerical example:

Dedicated Capital Contribution of SIX x-clear Ltd ("skin in the game") = 22; Default Fund Segment = 300; the initial Default results in 178 being used from the Default Fund Segment. After 5 Business Days, a second Default occurs, resulting in a loss of 150; 122 can be taken from the remainder of the Default Fund Segment, while 28 has to be covered using Top-up Contributions from Members.

After another 7 Business Days, a third large Default occurs, resulting in a loss of 320, which can no longer be covered using resources from the Default Fund Segment. The non-defaulting Members must pay a Top-up Contribution of 272 (300 minus 28).

Replenishment: 15 Business Days after the first Default the size of the Default Fund Segment was reduced by SIX x-clear from 300 to 250. At $t_1 + 20$ a replenishment of the Default Fund Segment in the amount of 148 ($250 / 300 * 178$) is to be effected by the non-defaulting Members. 15 Business Days after the second Default the Default Fund Segment was again reduced, i.e. from 250 to 200. Therefore, at $t_2 + 20$ Business Days another replenishment of the Default Fund Segment is to be effected by the remaining Members in an amount of 52 (200 minus 148).

The Top-up Contribution must be provided by the Members within 2 Business Days. This means that during the Cooling-off Period of 20 Business Days, the Contributions (Top-ups) from the Members could cover a loss that exceeds the size of the Default Fund Segment, even after the latter's full exhaustion.

The amount of the Top-up Contribution is limited to the amount of the individual contribution by the Member to the entire Default Fund Segment at the time of the Default occurring with a loss exceeding the



Default Fund (“Exceeding Drawdown”). The maximum contribution of a non-defaulting Member to the replenishment of the Default Fund Segment (in form of a Default Fund Replenishment Contribution) and to the coverage of a loss exceeding the Default Fund Segment (in form of a Top-up Contribution) could thus, in an extreme case of an Extraordinary Default, amount to twice the size of that Member’s regular Default Fund Contribution. This applies for the respective Cooling-off Period.

The remaining equity capital of SIX x-clear Ltd (75 per cent) would only be used as the last level of cover after the Default Fund Segment in question has been exhausted and the Top-up Contributions due from the non-defaulting Members have been used.

Our renowned international competitors (EuroCCP and LCH) have similarly expanded their collateral systems in recent years.

C. General Terms and Conditions:

Amendment regarding x-clear’s Dedicated Capital Contribution

In the case of a Member Default which exceeds the collateral (Margin and Default Fund Contribution) contributed by the defaulting Member, SIX x-clear shall – according to the “waterfall of resources” – have to contribute a Dedicated Capital Contribution (“skin in the game”) to cover losses before the collaterals of the non-defaulting Members are used. Several Default events that would take place in succession within a short time could weaken the equity capital base of SIX x-clear Ltd substantially or even exhaust it completely. SIX x-clear Ltd, therefore, intends to introduce a grace period (“**Cooling-off Period**”), which allows it not to pay such Dedicated Capital Contribution during a **6-month period** after its full-scale use. If within a Cooling-off Period a portion of the Dedicated Capital Contribution has been used to cover one or more precedent Member Defaults, x-clear shall have an obligation to provide the unexpired portion of its contribution only.

Clause 18.2 of the future GTC shall read as follows:

Before using Default Fund Contributions of non-defaulting Members x-clear shall use 25 per cent of its own capital (as defined by Swiss law, in particular the Financial Market Infrastructure Act and the Ordinance on Capital Adequacy) to cover losses caused by a Member Default (“Dedicated Capital Contribution”).

x-clear shall make a Dedicated Capital Contribution only once for a period of 6 months following a Member Default or several Member Defaults which necessitated the full use of such contribution (“Cooling-off Period of x-clear”). In case a portion of the Dedicated Capital Contribution (being a fraction of the 25 per cent of x-clear’s capital) has been used by one or several precedent Member Default(s) within such Cooling-off Period, x-clear shall pay the remainder of the Dedicated Capital Contribution only.



Further procedure

Please contact your Relationship Manager in case of questions.

or

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We kindly ask you for your review of this draft Amendment Agreement. Your response is appreciated in electronic form until **Monday, 22 February 2016**, to your relationship manager.

Subsequently, we will consolidate your proposals as soon as possible and inform you about the further process. It is our goal to implement the new contract and the revised GTC by the end of March 2016.

Sincerely,

SIX x-clear AG

Christian Sjöberg
Head Clearing

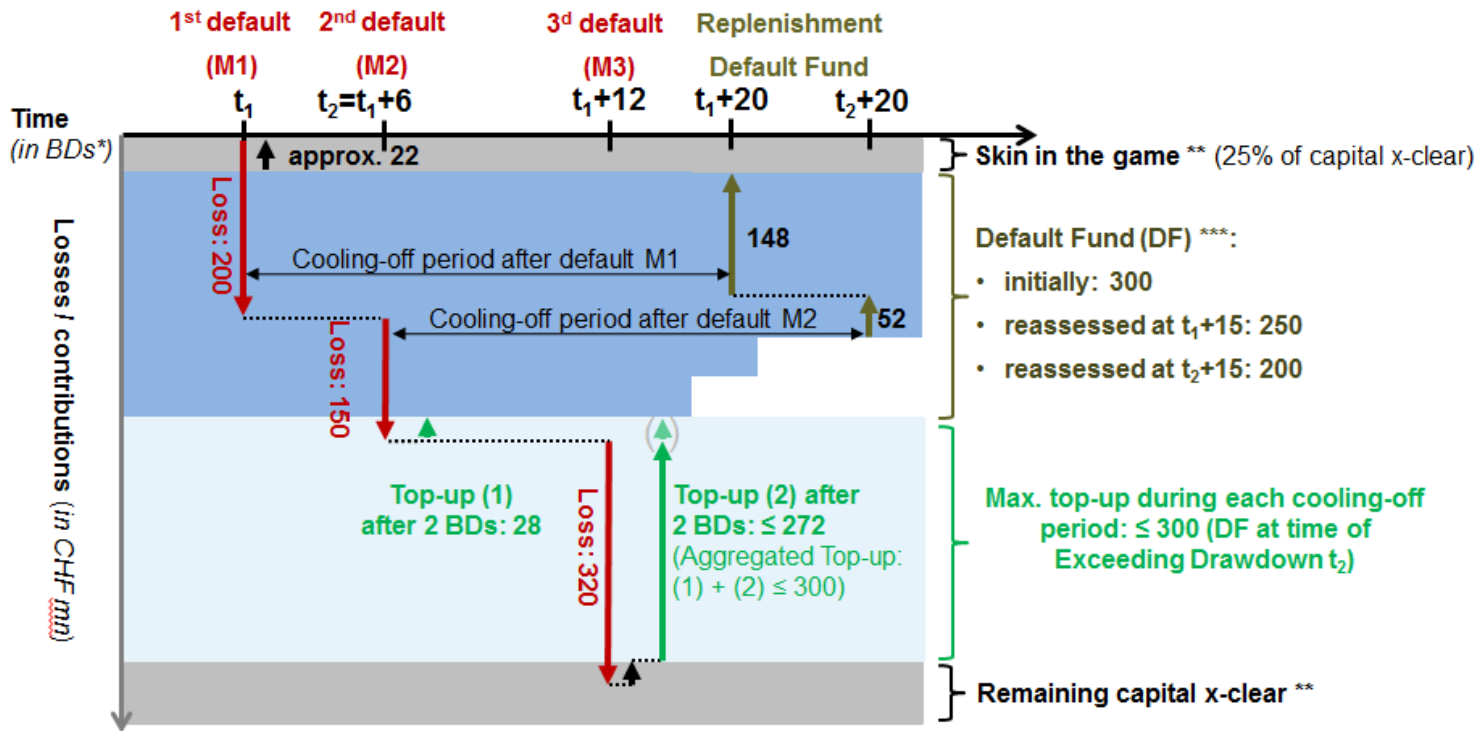
Markus Heiniger
Head Risk Management Operations

Attachment: Draft "Amendment Agreement to Financial Collateral Agreements"



Example of Several Defaults over Short Period of Time

Exemplary Presentation: Extreme Total Loss of CHF 670mn due to three Events within 20 Days



* BD stands for Business Days

** available only once for a period of 6 months following defaults of Members (M1, M2 etc.)

*** The size of the Default Fund differs from its initial size due to reassessment after default of one or several Members.