



18 September 2018

Mr. Chris Kirkpatrick
Secretary
Commodity Futures Trading Commission
Three Lafayette Center
1155 21st St., N.W.
Washington, DC 20581
United States of America

Dear Mr. Kirkpatrick,

Self-certification of Amendments to SGX-DC Clearing Rules

1. Introduction

1.1 Singapore Exchange Derivatives Clearing Limited ("**SGX-DC**"), a derivatives clearing organisation ("**DCO**") registered with the Commodity Futures Trading Commission (the "**Commission**"), hereby submits a self-certification for amendments to its Clearing Rules (the "**Amendments**") pursuant to Commission regulation 40.6(a).

2. Intended Implementation Date

2.1 The Amendments are proposed to be implemented on 8 October 2018, but will not be implemented prior to the Commission's 10 business day review period.

3. Explanation and Analysis

3.1 The Amendments relate to changes to the SGX-DC clearing fund (the "**Clearing Fund**"). SGX-DC intends to implement these changes to enhance the robustness of the Clearing Fund as well as simplify its structure. The changes will enable the Clearing Fund to reflect more accurately the risks to the SGX-DC clearing system and mutualise losses in a more consistent manner.

3.2 SGX-DC is registered as an approved clearing house under the Securities and Futures Act of Singapore and regulated by the Monetary Authority of Singapore ("**MAS**"). The MAS has been notified of the Amendments and has given its indication of no-comment on the changes.

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3.3 SGX-DC is proposing the Amendments in respect of the following changes to the Clearing Fund:

- (a) the merging of the contract classes for exchange-traded derivatives and non-relevant market contracts into a single contract class; and
- (b) the refinement of the methodology for determining SGX-DC clearing members' Clearing Fund contributions.

Merging of contract classes

3.4 SGX-DC operates a single clearing fund structure, which covers losses arising from the default of a clearing member, after the defaulted clearing member's collateral has been fully utilised to discharge its obligations to the clearing house. The Clearing Fund resources are segregated by contract classes so as to limit risk contagion among members who clear in different businesses. The funds of those members who participate in the same contract class as the defaulted member are used before that of members who do not participate in that contract class. The loss allocation mechanism in Clearing Rule 7A.01A.2 (Clearing Fund Loss Allocation Mechanism) sets out the order of priority for utilising the Clearing Fund as follows:

- (a) Clearing House First Loss Contribution;
- (b) Security Deposits of those members which have been active in any of the contract classes in which the default has occurred;
- (c) Further Assessment Amounts of those members which have been active in any of the contract classes in which the default has occurred;
- (d) Clearing House Intermediate Contribution;
- (e) Security Deposits of members which are not available for use, or which have not been exhausted under (b);
- (f) Further Assessment Amounts of members which are not available for use, or which have not been exhausted under to (c); and
- (g) Any other contributions to the Clearing Fund.

3.5 Currently, Rule 7A.01A.5 sets out, for the purpose of Rule 7A.01A.2, three Contract Classes within which an event of default may fall. They are:

- (a) Contracts that are listed for trading on the Exchange or Relevant Market ("**ETD Contracts**"),
- (b) Non-Relevant Market Contracts ("**NMC Contracts**"), and
- (c) OTCF Contracts¹.

¹ OTCF refers to over-the-counter financial derivatives.

- 3.6 Clearing Rule 7A.01A.5 will be amended to combine ETD Contracts and NMC Contracts into a single contract class. The segregation of ETD Contracts and NMC Contracts into two separate classes is no longer meaningful. Since April 2013 all of SGX's NMC Contracts have fungible ETD Contract equivalents, and the bulk of the NMC exposures have migrated to the ETD Contracts. Furthermore, each of the NMC and ETD contracts in a fungible pair are treated the same way for risk management purposes. In the event of a default, SGX-DC would manage such fungible contracts as a portfolio for default management purposes.

Refinement to the Methodology for Determining Members' Clearing Fund Contributions

- 3.7 Currently, a clearing member's Clearing Fund contributions consist of:
- (a) a Security Deposit, which is determined as a function of the clearing member's margin requirement; and
 - (b) a Further Assessment Amount, which is a multiple of the clearing member's Security Deposit. Each clearing member is required to deposit with the clearing house a portion of their Further Assessment Amount ("**pre-funded Further Assessment**").
- 3.8 The Amendments reflect the following changes which seek to correlate members' contributions to overall stress test losses, minimise pro-cyclicality and simplify Clearing Fund requirements:

- (a) Member's contribution requirement will be derived from overall stress test losses.

The current methodology for determining clearing members' Clearing Fund contributions has a tendency to place pro-cyclical pressure on clearing members during volatile market conditions as, in such circumstances, Clearing Fund contribution requirements would increase in tandem with the higher margin requirements. This does not correspond with the overall stress test loss which would have been lowered by the increase in margin requirements.

Rule 7A.06.2 will be amended such that a clearing member's Clearing Fund contributions will no longer be derived from the member's average risk margins but will be determined based on the member's proportionate share of the total Clearing Fund contributions required from all members in that contract class.

- (b) The Security Deposit requirement and the pre-funded Further Assessment requirement will be combined into a single Clearing Fund contribution requirement.

To simplify clearing members' Clearing Fund contribution requirements, SGX proposes to replace the Security Deposit and the pre-funded Further Assessment with a single "**Clearing Fund Deposit**". Clearing Rule 7A.06.1.2 will be amended to replace the Security Deposit and the pre-funded Further Assessment Amount requirements with a single Clearing Fund Deposit requirement. Rule 7A.06.3.2 will be deleted to remove the requirement to prefund a percentage of the Further Assessment Amount.

In addition, Clearing Rule 7A.06.3.1 will be amended to revise the Further Assessment Amount from three times of the member's Security Deposit to one time of the member's Clearing Fund Deposit.

- 3.9 The proposed changes will provide clearing members with greater clarity, and enable better capital efficiency as the Clearing Fund size will be more closely aligned with the overall stress test loss.
- 3.10 Clearing members will be informed of their indicative clearing fund contributions through regular reports, prior to the monthly effective date for collection. This will enable clearing members to anticipate their Clearing Fund Deposit requirement.

4. Description of Amendments

- 4.1 The text of the Amendments with the changes indicated is attached as Appendix 1.

5. Certification of Compliance with Core Principles

- 5.1 The Amendments have been promulgated in respect of SGX-DC's compliance with Core Principle D on risk management and Core Principle G on default rules and procedures.
- 5.2 SGX-DC hereby certifies to the Commission that the Amendments comply with the Commodity Exchange Act, as amended, and the regulations promulgated thereunder.

6. Public Notice of Pending Certification

- 6.1 SGX-DC has made publicly available a notice of the Amendments' pending certification with the Commission, together with a copy of this submission on its website at the following address:
http://www.sgx.com/wps/portal/sgxweb/home/regulation/consult_pub/dco_submission
s.

7. Opposing Views

- 7.1 There were no opposing views expressed to SGX-DC by its board or committee members, SGX-DC Clearing Members or market participants that were not incorporated into the Amendments. If any opposing views are received by SGX-DC during the Commission's review period, such views will be communicated to the Commission accordingly.
- 7.2 A summary of feedback received on a public consultation conducted 13 March 2018 to 3 April 2018 and SGX-DC's responses to the same are set out in Appendix 2.

8. Contact Details

- 8.1 Please do not hesitate to contact the undersigned at kahmun.huay@sgx.com or +65 6713 6504 should you require any clarification.

Yours sincerely



Huay Kah Mun
Senior Associate
Regulatory Development and Policy (Regulation)

Proposed amendments to the SGX-DC Clearing Rules

PROPOSED RULE AMENDMENTS

Chapter 2 Clearing Membership

2.13 Duties and Responsibilities of Clearing Members

2.13.1

A Clearing Member shall, subject to the Rules, also have the following responsibilities and duties:—

...

2.13.1.5 To provide and maintain such Security-Deposit Clearing Fund Deposit as specified in Rule 7A.06.2 in addition to any security deposit requirement that may be required of it as a Clearing Member of the Clearing House;

2.28 Voluntary Suspension and Resignation

2.28.2A

In respect of all defaults declared by the Clearing House, which occurrence takes place at or after such time that the Clearing House receives a Clearing Member's notice of resignation and before its effective date of resignation (such period being hereafter referred to as the "Notice Period"), the following shall apply:

2.28.2A.1 the Clearing House shall apply the resigning Clearing Member's Security-Deposit Clearing Fund Deposit and Further Assessment Amount in accordance with Rule 7A.01A.2, except that the aggregate amount applied in respect of all such defaults shall be subject always to a limit of no more than two (2) times of the resigning Clearing Member's Security-Deposit Clearing Fund Deposit requirement and Further Assessment Amount as at the time the Clearing House receives its notice of resignation.

2.28.2A.2 [This rule has been deleted]

This Rule 2.28.2A shall apply provided always that the Clearing Member complies with Rule 2.28.2B.

2.28.2C

If a resigning Clearing Member breaches Rule 2.28.2B at any time during the Notice Period, Rule 2.28.2A.1 shall not apply to such Clearing Member in their entirety and instead the following shall apply:

...

2.28.2C.2 If, due to the operation of Rule 2.28.2A.1, any amount of such Clearing Member's:

- a. Security Deposit Clearing Fund Deposit requirement; or
- b. Further Assessment Amount; or
- c. both,

has not been used and applied by the Clearing House in accordance with Rule 7A.01A.2, the Clearing House shall have the authority to call for and apply such amount as if the assessment had been utilised in the first instance in accordance with Rule 7A.01A.2.

Chapter 4 Enforcement of Rules

4.12 Major Offences

4.12.1

It shall be a major offence for a Clearing Member charged to:—

...

4.12.1.6 fail to maintain minimum financial requirements or fail to maintain the required Security Deposit Clearing Fund Deposit;

Chapter 7 Clearing and Margins

7A.01A Events of Default

7A.01A.2 Clearing Fund Loss Allocation Mechanism

Subject to Rule 7A.06.6.4 (Use of the Clearing Fund in Respect of Events of Default Occurring Within a Multiple Default Period) and Rule 7A.01B (Clearing Fund Loss Allocation Mechanism for Default in OTCF Contracts), and provided that the defaulted Clearing Member's Collateral deposited with or provided to SGX-DC has been fully applied in accordance with Rule 7A.05.01, any loss suffered by the Clearing House arising from or in connection with an event of default shall be met and made good promptly by the use and application of funds from the following sources (collectively known as the "Clearing Fund") in the order of priority hereafter listed, with each source of funds to be completely exhausted, subject to the limitations contained therein, before the next source is applied:—

a. Clearing House First Loss Contribution. The losses in each Contract Class in which the default has occurred will be met with that part of the Clearing House First Loss Contribution that is apportioned to that Contract Class. If the Clearing House First Loss Contribution apportioned to a particular Contract Class is not exhausted, the unexhausted funds will be used and applied to meet any losses that may remain in the other Contract Class(es), after the Clearing House First Loss Contribution apportioned to those the other Contract Class(es) have been applied and exhausted.

b. Security-Deposits Clearing Fund Deposits of those Clearing Members, excluding any Clearing Member who is insolvent or deemed to be insolvent, which have been active in any of the Contract Classes in which the default has occurred. A Clearing Member is active in a Contract Class if it has:

- i. cleared Contracts belonging to that Contract Class during the Relevant Period; or
- ii. had an open commitment in Contracts belonging to that Contract Class during the Relevant Period.

A Clearing Member's Security-Deposit Clearing Fund Deposit will be used under this Rule 7A.01A.2.b in respect of a Contract Class only if the Clearing Member has been active in that Contract Class. Further, only that part of each such Clearing Member's Security-Deposit Clearing Fund Deposit that has been apportioned to the Contract Class will be used in respect of the Contract Class.

Save as provided in Rule 7A.01B (Clearing Fund Loss Allocation Mechanism for Default in OTCF Contracts), a Clearing Member's liability for the loss remaining in a Contract Class will be on a pro-rata basis, calculated as the proportion of its Security-Deposit Clearing Fund Deposit requirement for that Contract Class, relative to the aggregate Security-Deposit Clearing Fund Deposit requirement for that same Contract Class of all Clearing Members that are active in that Contract Class.

In the event that Security-Deposits Clearing Fund Deposits apportioned to a Contract Class are not exhausted pursuant to this Rule 7A.01A.2.b, the unexhausted funds will be used under Rule 7A.01A.2.d to meet any losses that may remain in any other Contract Class(es) in which the event of default occurred.

c. Further Assessment Amounts of those Clearing Members, excluding any Clearing Member who is insolvent or deemed to be insolvent, which have been active (in the manner described in Rule 7A.01A.2.b) in any of the Contract Classes in which the default has occurred.

A Clearing Member's Further Assessment Amount will be used under this Rule 7A.01A.2.c in respect of a Contract Class only if the Clearing Member has been active in that Contract Class. Further, only that part of each such Clearing Member's Further Assessment Amount that has been apportioned to the Contract Class will be used in respect of the Contract Class.

Save as provided in Rule 7A.01B (Clearing Fund Loss Allocation Mechanism for Default in OTCF Contracts), a Clearing Member's liability for the loss remaining in a Contract Class will be on a pro-rata basis, calculated as the proportion of its Further Assessment Amount requirement for that Contract

Class, relative to the aggregate Further Assessment Amount requirement for that same Contract Class of all Clearing Members that are active in that Contract Class.

In the event that Further Assessment Amounts apportioned to a Contract Class are not exhausted pursuant to this Rule 7A.01A.2.c, the unexhausted funds will be used under Rule 7A.01A.2.e to meet any losses that may remain in any other Contract Class(es) in which the event of default occurred.

c1. Clearing House Intermediate Contribution. The losses in each Contract Class in which the default has occurred will be met with that part of the Clearing House Intermediate Contribution that is apportioned to that Contract Class. If the funds apportioned to a particular Contract Class are not exhausted, the unexhausted funds will be used and applied to meet any losses that may remain in the other Contract Class(es), after the funds apportioned to these the other Contract Class(es) have been applied and exhausted.

d. Security Deposits Clearing Fund Deposits of those Clearing Members, excluding any Clearing Member who is insolvent or deemed to be insolvent, which are not available for use, or which have not been exhausted, pursuant to Rule 7A.01A.2.b.

A Clearing Member's liability for the loss remaining in a Contract Class will be on a pro-rata basis, calculated as the proportion of its Security Deposit Clearing Fund Deposit requirement relative to the aggregate Security Deposit Clearing Fund Deposit requirement of all Clearing Members that have Security Deposits Clearing Fund Deposits available for use under this Rule 7A.01A.2.d.

e. Further Assessment Amounts, of Clearing Members, excluding any Clearing Member who is insolvent or deemed to be insolvent, which are not available for use, or which have not been exhausted, pursuant to Rule 7A.01A.2.c.

A Clearing Member's liability for the loss remaining in a Contract Class will be on a pro-rata basis, calculated as the proportion of its Further Assessment Amount requirement relative to the aggregate Further Assessment Amount requirement of all Clearing Members that have Further Assessment Amounts available for use under this Rule 7A.01A.2.e.

f. Any other contributions to the Clearing Fund.

7A.01A.2A Apportionment of Clearing Fund Contributions across Contract Classes and across OTCF Auctions

- a. Where an event of default is deemed to have occurred in more than one Contract Class, the Clearing House First Loss Contribution and Clearing House Intermediate Contribution will be apportioned to each Contract Class in such proportion as the Clearing House will determine. The funds so apportioned will be used in the manner set out in Rule 7A.01A.2 (Clearing Fund Loss Allocation Mechanism) and Rule 7A.01B (Clearing Fund Loss Allocation Mechanism for Default in OTCF Contracts).
- b. Where an event of default is deemed to have occurred, the Security-Deposit Clearing Fund Deposit and Further Assessment Amount of each Clearing Member will be apportioned. The Security-Deposit Clearing Fund Deposit and Further Assessment Amount deposited by a Clearing Member in respect of OTCF Contracts pursuant to Rules 7A.06.2 and 7A.06.3 will be apportioned to OTCF Contracts. The rest of the Security-Deposit Clearing Fund Deposit and Further Assessment Amount deposited by the Clearing Member will be apportioned to the other Contract Classes (not including the OTCF Contract Class) in such proportion as the Clearing House will determine in such proportion as the Clearing House will determine. The funds so apportioned will be used in the manner set out in Rule 7A.01A.2 (Clearing Fund Loss Allocation Mechanism) and Rule 7A.01B (Clearing Fund Loss Allocation Mechanism for Default in OTCF Contracts).
- c. Where an event of default is deemed to have occurred in OTCF Contracts and there is more than one auction under Rule 7A.02.1.5.b, the part of the Clearing House First Loss Contribution, Clearing House Intermediate Contribution and each Clearing Member's Security-Deposit Clearing Fund Deposit and Further Assessment Amount that is apportioned to OTCF Contracts will be further apportioned to each auction. The apportionment will be in such proportion as the Clearing House will determine. The funds so apportioned will be used in the manner set out in Rule 7A.01A.2 (Clearing Fund Loss Allocation Mechanism) and Rule 7A.01B (Clearing Fund Loss Allocation Mechanism for Default in OTCF Contracts).

7A.01A.3

Where Clearing Members' Security-Deposits Clearing Fund Deposits or Further Assessment Amounts are used and applied in accordance with Rules 7A.01A.2.b. c. d or e, the limits to one or more Clearing Members' liabilities in respect of such funds as set out in Rule 2.28.2A or Rule 7A.06.6.6 may be reached. As a consequence of the foregoing, the contributions of Clearing Members which remain liable in respect of the relevant source of funds may remain unexhausted, while outstanding losses remain following such use and application of the source of funds. In such instances, the following shall apply:

- a. the remaining contributions of Clearing Members in respect of the relevant source of funds shall be applied to meet the outstanding loss, subject to their limits set out in Rule 2.28.2A and Rule 7A.06.6.6; and
- b. the liability of each Clearing Member for such loss shall be determined as described in Rules 7A.01A.2.b. c. d or e, whichever is applicable, subject always to the operation of Rule 7A.06.6.5.

7A.01A.5

For the purpose of Rules 7A.01A.2.b, c, d, and e, an event of default shall fall within either of the following limbs:

- a. Contracts that are listed for trading on the Exchange or Relevant Market and Non-Relevant Market Contracts; or
- b. Non-Relevant Market Contracts; or [Deleted]
- c. OTCF Contracts
(each limb a "Contract Class", and collectively, "Contract Classes")

except as provided in Rules 7A.01A.7 and 7A.01A.9, when an event of default is deemed to fall within (i) any combination of the Contract Classes, or (ii) all of the Contract Classes, as the case may be.

7A.01B Clearing Fund Loss Allocation Mechanism for Default in OTCF Contracts

7A.01B.3 Clearing Fund Loss Allocation Mechanism for Contributions of Members Active in OTCF Contracts

Subject to Rule 7A.01B.4, Clearing Members' Security-Deposits Clearing Fund Deposits and Further Assessment Amounts apportioned to an auction will be used, notwithstanding Rules 7A.01A.2.b and c., to meet the losses remaining after the auction in the following descending order of priority and manner, with each source of funds to be completely exhausted, subject to the limitations contained therein, before the next source is applied:—

- a. Security-Deposits Clearing Fund Deposits of Participating Clearing Members which are apportioned to the auction, where such Participating Clearing Members did not participate in the auction.
 Each such Participating Clearing Member's liability for the loss remaining will be on a pro-rata basis, calculated as the proportion of its Security-Deposit Clearing Fund Deposit requirement for OTCF Contracts relative to the aggregate Security-Deposit Clearing Fund Deposit requirement for OTCF Contracts of all Participating Clearing Members that did not participate in the auction.
- b. Further Assessment Amounts of Participating Clearing Members which are apportioned to the auction, where such Participating Clearing Members did not participate in the auction.
 Each such Participating Clearing Member's liability for the loss remaining will be on a pro-rata basis, calculated as the proportion of its Further Assessment Amount requirement for OTCF Contracts relative to the aggregate Further Assessment Amount requirement for OTCF Contracts of all Participating Clearing Members that did not participate in the auction.
- c. Security-Deposits Clearing Fund Deposits of Participating Clearing Members which are apportioned to the auction, where such Participating Clearing Members submitted bids in the auction and their bids were below the Reference Price.

Each such Participating Clearing Member's liability for the loss remaining will be on a pro-rata basis, calculated as the proportion of the product of:

- i. the distance between such Clearing Member's bid price and the Reference Price; and
- ii. its Security-Deposit Clearing Fund Deposit requirement for OTCF Contracts,

relative to the aggregate of the product of Rule 7A.01B.3.c.i and ii for all Participating Clearing Members that submitted bids in the auction below the Reference Price.

- d. Further Assessment Amounts of Participating Clearing Members which are apportioned to the auction, where such Participating Clearing Members submitted bids in the auction and their bids were below the Reference Price.

Each such Clearing Member's liability for the loss remaining will be on a pro-rata basis, calculated as the proportion of the product of:

- i. the distance between such Clearing Member's bid price and the Reference Price; and
- ii. its Further Assessment Amount requirement for OTCF Contracts,

relative to the aggregate of the product of Rule 7A.01B.3.d.i and ii for all Participating Clearing Members that submitted bids in the auction below the Reference Price.

- e. Security-Deposits Clearing Fund Deposits of Clearing Members which are apportioned to the auction and which are not available for use pursuant to Rule 7A.01B.3.a or c, or which have not been exhausted pursuant to Rule 7A.01B.3.c.

Each Clearing Member's liability for the loss remaining will be on a pro-rata basis, calculated as the proportion of its Security-Deposit Clearing Fund Deposit requirement for OTCF Contracts relative to the aggregate Security-Deposit Clearing Fund Deposit requirement for OTCF Contracts of all Clearing Members that have Security-Deposits Clearing Fund Deposits available for use under this Rule 7A.01B.3.e for the auction.

- f. Further Assessment Amounts of Clearing Members which are apportioned to the auction and which are not available for use pursuant to Rule 7A.01B.3.b or d, or which have not been exhausted pursuant to Rule 7A.01B.3.d.
Each Clearing Member's liability for the loss remaining will be on a pro-rata basis, calculated as the proportion of its Further Assessment Amount requirement for OTCF Contracts relative to the aggregate Further Assessment Amount requirement for OTCF Contracts of all Clearing Members that have Further Assessment Amounts available for use under this Rule 7A.01B.3.f for the auction.

7A.01B.4

Notwithstanding the order of priority set out in Rule 7A.01B.3, the following applies where there is more than one auction under Rule 7A.02.1.5.b for an event of default in OTCF Contracts.

If funds that are apportioned to an auction ("first auction") are not exhausted after application pursuant to Rule 7A.01B.3, the unexhausted funds will be used to meet the losses that remain in the other auction(s) ("other auction(s)") in accordance with the following principles:

- a. If a Clearing Member is liable to meet losses in the same order of priority in the first auction and the other auction(s), its unexhausted funds from the first auction will be used in the corresponding source in the other auction(s), but only after the funds in that source apportioned to the other auction(s) have been exhausted.
- b. If a Clearing Member is liable to meet losses in different orders of priority in the first auction and the other auction(s), its unexhausted Security-Deposit Clearing Fund Deposit from the first auction will be used in the source described in Rule 7A.01B.3.e in the other auction(s) and its unexhausted Further Assessment Amount from the first auction will be used in the source described in Rule 7A.01B.3.f in the other auction(s), but only after the funds in those sources apportioned to the other auction(s) have been exhausted.

7A.05 Protection of Clearing House

7A.05.1.4 Without prejudice to the rights of the Clearing House in respect of failure by the Clearing Member to promptly discharge any of its obligations to the Clearing House, the Clearing Member shall immediately make up any deficiencies in its Security-Deposit Clearing Fund Deposit resulting from such applications.

7A.06 Clearing Fund

7A.06.1.2 The Clearing Fund shall comprise:

- a. Security-Deposit Clearing Fund Deposits;
- b. Further Assessment Amounts; and
- c. Aggregate Clearing House Contribution.

7A.06.2 Security-Deposit Clearing Fund Deposit

7A.06.2.1 Upon being granted eligibility by the Clearing House to clear a relevant Contract Class, each Clearing Member wishing to clear that Contract Class shall deposit with the Clearing House as security for its obligations to the Clearing House ("Security-Deposit Clearing Fund Deposit") the following amounts:

- A. for clearing Contracts which are listed for trading on the Exchange or any Relevant Market and/or Non-Relevant Market Contracts, the higher of:

<p>a. US\$1,000,000 or such lower amount as prescribed by the Clearing House from time to time in its discretion; or</p> <p>b. 4.5%, or such lower amount as prescribed by the Clearing House from time to time in its discretion, of the daily average of the risk margin of such Clearing Member during the preceding three month period the Clearing Member's proportionate share of the total Clearing Fund Deposits required from all Clearing Members in this Contract Class, which shall be an amount determined by the Clearing House. Each Clearing Member's proportionate share of the total Clearing Fund Deposits shall be determined based on the exposure that the Clearing Member brings to the clearing system, taking into account factors including, but not limited to, the Clearing Member's average margin requirements over the preceding three month period;</p> <p>B. for clearing OTCF Contracts, the higher of:</p> <p>a. US\$5 million; or</p> <p>b. 6.0%, or such lower amount as prescribed by the Clearing House from time to time in its discretion, the daily average of the risk margin of such Clearing Member for such OTCF Contracts during the preceding three month period the Clearing Member's proportionate share of the total Clearing Fund Deposits required from all Clearing Members in this Contract Class, which shall be an amount determined by the Clearing House. Each Clearing Member's proportionate share of the total Clearing Fund Deposits shall be determined based on the exposure that the Clearing Member brings to the clearing system, taking into account factors including, but not limited to, the Clearing Member's average margin requirements over the preceding three month period; or</p> <p>C. for clearing (i) Contracts which are listed for trading on the Exchange or any Relevant Market and/or Non-Relevant Market Contracts, and (ii) OTCF Contracts, the sum of the amounts set out in Rule 7A.06.2.1.A and 7A.06.2.1.B.</p>
<p>7A.06.2.2 The Security Deposit Clearing Fund Deposit shall be in cash, government securities or any other forms of Collateral acceptable to the Clearing House from time to time.</p>
<p>7A.06.2.3 Government securities or any other form of Collateral acceptable to the Clearing House shall not exceed a prescribed proportion of the Security Deposit Clearing Fund Deposit, as the Clearing House may specify from time to time in its discretion.</p>
<p>7A.06.3.1 The Further Assessment Amount shall be an amount up to three (3) one (1) times of a Clearing Member's Security Deposit Clearing Fund Deposit requirement, as prescribed by the Clearing House from time to time in its discretion.</p>

<p>7A.06.3.2 [Deleted] Each Clearing Member shall be required to deposit with the Clearing House a percentage of its Further Assessment Amount as set out below:</p> <ul style="list-style-type: none">a. in respect of Further Assessment Amount attributable to Contracts traded on the Exchange or any Relevant Market or Non-Relevant Market Contracts, an amount up to 50% in the form of cash or government securities; orb. in respect of Further Assessment Amount attributable to OTC Contracts, an amount up to 100% in the form of cash or government securities; <p>or any other forms of Collateral acceptable to the Clearing House from time to time.</p>
<p>7A.06.3.3 In the use and application of the Further Assessment Amounts pursuant to Rule 7A.01A.2 in an event of default, the Clearing House shall be entitled to call for payment of any balance of the Further Assessment Amount, which has not been deposited with the Clearing House pursuant to Rule 7A.06.3.2, at such time as it deems appropriate. A Clearing Member shall immediately furnish such amount to the Clearing House, prior to the close of business on the Business Day immediately following such call.</p>
<p>7A.06.6.5 A resigning Clearing Member whose Security Deposit Clearing Fund Deposit and Further Assessment Amount have been applied fully as specified in Rule 2.28.2A shall thereafter:</p> <ul style="list-style-type: none">a. not be taken into account for the calculation of the aggregate Security Deposit Clearing Fund Deposit requirement referred to in Rules 7A.01A.2.b and d.; andb. not be taken into account for the calculation of the aggregate Further Assessment Amount referred to in Rules 7A.01A.2.c and e.
<p>7A.06.6.6 Nothing in this Rule 7A.06.6 shall be construed as permitting the Clearing House to apply more than the Clearing Member's Security Deposit Clearing Fund Deposit and Further Assessment Amount as at the time of the event of default, to meet losses arising from or in connection with any individual event of default.</p>

7A.06.8 Security Deposits Clearing Fund Deposits to be Restored

7A.06.8.1 In the event that it shall become necessary as provided in Rule 7A.06 to apply all or part of the **Security Deposits Clearing Fund Deposits** to meet obligations to the Clearing House (other than a Clearing Member's own obligation resulting from the substitution of the Clearing House on its trades), the Clearing Member shall immediately make good any such deficiency in **Security Deposits Clearing Fund Deposits** prior to the close of business on the Business Day immediately following such application.

7A.06.8.2 In the event that the limits to the application of the Clearing Member's **Security-Deposit Clearing Fund Deposit** under Rule 2.28.2A.1 have been reached, the **Security-Deposits Clearing Fund Deposits** restored in accordance with Rule 7A.06.8.1 shall be applied only to meet the Clearing Member's own obligations to the Clearing House, resulting from the substitution of the Clearing House on its trades.

Chapter 9 Definitions and Interpretation

9.01 Definitions

Term	Meaning
"Collateral"	means all or any of the monies and assets deposited with, or otherwise provided to, the Clearing House by or for a Clearing Member as margin, Security-Deposit Clearing Fund Deposit , Further Assessment Amount or any other form of credit support and/or security as may be required under this Rules or as otherwise directed by the Clearing House, but shall not include Performance Deposits or other Escrow Assets.
"Security Clearing Fund Deposit"	means an amount required to be deposited with the Clearing House by each Clearing Member as security for its obligations to the Clearing House in accordance with <u>Rule 7A.06.2</u> .

Practice Note 7A.01A.2A — Apportionment of Clearing Fund Contributions across Contract Classes and across OTCF auctions

1. Introduction

1.1. This Practice Note describes:

- i. the apportionment of the Clearing House First Loss Contribution and the Clearing House Intermediate Contribution pursuant to Rule 7A.01A.2A.a across Contract Classes where an event of default is deemed to have occurred in more than one Contract Class;
- ii. the apportionment of the Security-Deposit Clearing Fund Deposit and Further Assessment Amount of each Clearing Member pursuant to Rule 7A.01A.2A.b across Contract Classes where an event of default is deemed to have occurred; and
- iii. the further apportionment of the part of the Clearing House First Loss Contribution, Clearing House Intermediate Contribution and Security-Deposit Clearing Fund Deposit and Further Assessment Amount of each Clearing Member that is apportioned to OTCF Contracts across auctions, where an event of default is deemed to have occurred in OTCF Contracts and there is more than one auction.

1.2. In this Practice Note, contracts that are listed for trading on the Exchange or Relevant Market ~~will be referred to as "ETD Contracts"~~ and Non-relevant Market Contracts will be referred to as "ETD and NMC Contracts".

2. Apportionment of Clearing House First Loss Contribution and the Clearing House Intermediate Contribution across Contract Classes

2.1. Where there is a default in more than one Contract Class, the Clearing House intends to apportion the Clearing House First Loss Contribution and the Clearing House Intermediate Contribution ~~across Contract Classes in the following manner:~~

- i. ~~first, the Clearing House First Loss Contribution of the Clearing House Intermediate Contribution will be apportioned between (a) OTCF Contracts and (b) ETD and NMC Contracts collectively, in the proportion of Clearing Members' aggregate Security Deposits Clearing Fund Deposits and Further Assessment Amounts for (a) OTCF Contracts, relative to those for (b) ETD and NMC Contracts collectively;~~
- ii. ~~second, the part of the Clearing House First Loss Contribution of the Clearing House Intermediate Contribution that is apportioned to ETD and NMC Contracts collectively will be further apportioned between (a) ETD Contracts and (b) NMC Contracts, based on the relative risk¹ of the defaulted Clearing Member in respect of ETD Contracts and NMC Contracts.~~

3. Apportionment of Security-Deposit Clearing Fund Deposit and Further Assessment Amount of each Clearing Member across Contract Classes

<p>3.1. Where there is a default, the Clearing House intends to apportion the <u>Security-Deposit Clearing Fund Deposit</u> and Further Assessment Amount of each Clearing Member across Contract Classes in the following manner:</p> <ul style="list-style-type: none">i. first, the Security-Deposit and Further Assessment Amount deposited in respect of OTCF Contracts will be apportioned to OTCF Contracts, and the Security-Deposit Clearing Fund Deposit and Further Assessment Amount deposited in respect of ETD and/or NMC Contracts collectively will be apportioned to ETD and/or NMC Contracts, collectively;ii. second, the Security-Deposit and Further Assessment Amount deposited for ETD and/or NMC Contracts collectively will be further apportioned between ETD Contracts and NMC Contracts based on the relative risk² of the defaulted Clearing Member in respect of ETD Contracts and NMC Contracts. If, however, a non-defaulting Clearing Member has not been active³ in one of the ETD and NMC Contract Classes, all of that Clearing Member's Security Deposit and Further Assessment Amount deposited for ETD Contracts and/or NMC Contracts collectively will be apportioned only to the Contract Class in which it has been active. <p>¹ SGX intends to use relative risk margins as a measurement of relative risk, but may use any other measurement as appropriate.</p> <p>² SGX intends to use relative risk margins as a measurement of relative risk, but may use any other measurement as appropriate.</p> <p>³ A Clearing Member is active in a Contract Class if it has cleared Contracts belonging to that Contract Class or had an open commitment in Contracts belonging to that Contract Class during the Relevant Period.</p> <p>⁴ SGX intends to use relative risk margins as a measurement of relative risk, but may use any other measurement as appropriate.</p> <p>4. Further apportionment of Clearing House First Loss Contribution, Clearing House Intermediate Contribution, and <u>Security-Deposit Clearing Fund Deposit</u> and Further Assessment Amount of each Clearing Member that is apportioned to OTCF Contracts across auctions</p> <p>4.1. Where there is a default in OTCF Contracts, a separate auction will be held for each product group of OTCF Contracts. In that event, the Clearing House intends to apportion, across auctions, the part of the Clearing House First Loss Contribution, Clearing House Intermediate Contribution and <u>Security Deposit Clearing Fund Deposit</u> and Further Assessment Amount of each Clearing Member that is apportioned to OTCF Contracts. Such apportionment will be based on the relative risk⁴ of the defaulted Clearing Member in respect of each product group.</p>

Practice Note 7A.01B — Illustrations of the Application of Clearing Member's Security-Deposit Clearing Fund Deposit and Further Assessment Amounts in respect of OTCF Contracts

1. Introduction

1.1. This Practice Note illustrates the use of Clearing Members' Security-Deposit Clearing Fund Deposit and Further Assessment Amounts for OTCF Contracts as set out in Rule 7A.01B.3.c, Rule 7A.01B.3.d and Rule 7A.01B.4.

2. Allocation of loss between Participating Clearing Members which are liable for loss remaining in an auction under Rule 7A.01B.3.c and Rule 7A.01B.3.d

2.1 When an event of default has occurred in OTCF Contracts and losses remain after the auction(s) referred to in Rule 7A.02.1.5.b, the Security-Deposit Clearing Fund Deposit and Further Assessment Amount that are apportioned to OTCF Contracts, of a Clearing Member that is active in OTCF Contracts (as described in Rule 7A.01A.2.b), will be used to meet those losses.¹

2.2 Rule 7A.01B.3 sets out the order of priority in which such funds of such a Clearing Member will be used to meet the losses that remain after an auction. There are three general levels in that order of priority.

- i. The first level is described in Rule 7A.01B.3.a (Security-Deposits Clearing Fund Deposits) and Rule 7A.01B.3.b (Further Assessment Amounts). All Clearing Members that are obliged to participate in the auction (i.e., Participating Clearing Members) but that did not submit a bid will fall within this first level.
- ii. The second level is described in Rule 7A.01B.3.c (Security-Deposits Clearing Fund Deposits) and Rule 7A.01B.3.d (Further Assessment Amounts). All Participating Clearing Members that bid below the Reference Price² will fall within this second level.
- iii. The third level is described in Rule 7A.01B.3.e (Security-Deposits Clearing Fund Deposits) and Rule 7A.01B.3.f (Further Assessment Amounts). All Clearing Members with Security-Deposits Clearing Fund Deposits and Further Assessment Amounts which are apportioned to the auction and which are not available for use pursuant to Rule 7A.01B.3.a, b, c and d, or which have not been exhausted pursuant to Rule 7A.01B.3.c and d, will fall within this third level.

2.3 Each Clearing Member that is liable in the second level will be liable for the loss remaining on a pro-rata basis, calculated as the proportion of the product of:

- i. the distance between that Clearing Member's bid price and the Reference Price; and
- ii. that Clearing Member's **Security-Deposit Clearing Fund Deposit**/Further Assessment Amount requirement apportioned to OTCF Contracts,

relative to the aggregate of the product of i and ii for all Clearing Members that is liable in the same second level.

2.4 By way of illustration, the liability of Participating Clearing Members, A and B, for the loss remaining in an auction will be in the following proportions, assuming the following bidding behaviour:

	Distance of bid from Reference Price (A)	Security-Deposits Clearing Fund Deposits/Further Assessment Amount requirement apportioned to OTCF Contracts (B)	A x B	Proportion
Participating Clearing Member A	S\$48 million	S\$10 million	48 x 10 = 480	480 / (480 + 240) = 2/3
Participating Clearing Member B	S\$12 million	S\$20 million	12 x 20 = 240	240 / (480 + 240) = 1/3

3. Use of unexhausted Security-Deposit Clearing Fund Deposit or Further Assessment Amount in another Auction

Schedule A

Chapter 7A — Suspension and Default

Rule Chapter/Number	Rule Violation	Brief Description of Rule	Whether composition may be offered	Composition Amount which may be Offered by the Clearing House, where the Clearing House has Determined the Clearing Member to be Liable	1st Violation	2nd Violation	3rd Violation	Mandatory minimum penalty imposed by the DC
Chapter 2 — Clearing Membership								
<u>2.13.1.5</u>	Clearing Member to provide and maintain Security-Deposit Clearing Fund Deposit in addition to any security deposit requirement that may be required		Compoundable	\$2,000 – \$4,000	\$4,000 – \$7,000	\$7,000 – \$10,000	N.A.	
Chapter 4 — Enforcement of Rules								
<u>4.12.1.6</u>	Clearing Member to maintain minimum financial requirements and the required Security-Deposit Clearing Fund Deposit		Not Compoundable	Not Compoundable	Not Compoundable	Not Compoundable	\$10,000	
Chapter 7A — Suspension and Default								
<u>7A.05.1.4</u>	Clearing Member to make up deficiencies in Security-Deposit Clearing Fund Deposit resulting from applications by Clearing House on default by Clearing Member		Not Compoundable	Not Compoundable	Not Compoundable	Not Compoundable	\$10,000	
<u>7A.05.1.5</u>	Clearing Member not to take any action to interfere with ability of Clearing House to apply the Security-Deposit Clearing Fund Deposit		Not Compoundable	Not Compoundable	Not Compoundable	Not Compoundable	\$30,000	

Appendix 1

7A.06.2.1	Clearing Member to place required Security Deposit Clearing Fund Deposit with the Clearing House	Not Compoundable	Not Compoundable	\$10,000	
7A.06.3.2	Clearing Member to deposit Further Assessment Amount with the Clearing House	Not Compoundable	Not Compoundable	\$10,000	
7A.06.3.3	Clearing Member to immediately furnish Further Assessment Amount not deposited with the Clearing House , prior to the close of business on the Business Day immediately following the call	Not Compoundable	Not Compoundable	\$10,000	
7A.06.8.1	Clearing Member to make good any deficiency in Security Deposits Clearing Fund Deposits prior to close of business on Business Day immediately following such application	Not Compoundable	Not Compoundable	\$10,000	