

Rules and Procedures of HKFE Clearing Corporation Limited

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PREFACE

HKCC as Counterparty

HKCC is obliged to meet its liabilities as counterparty only to the extent that it has the resources to do so out of:-

- (ii) the fund ~~and the contingent advance capital arrangement~~ referred to below.

Under the financial support from HKEX, HKCC has put in place ~~a contingent advance capital arrangement to provide additional funding in the event that the resources of the fund are insufficient to meet its liabilities arising from a participant default situation. To the extent any amount available under the contingent advance capital is utilized, HKCC will exercise its power under the Rules to recover the utilized amount from HKCC Participants. an HKCC Participant Additional Deposits Credit funding arrangement which helps to reduce the amount of HKCC Participant Additional Deposits payable by an HKCC Participant to HKCC.~~

CHAPTER I

INTERPRETATION

Definitions

101. In these Rules, the definitions contained in the Exchange Rules (as hereinafter defined) shall where the context permits be incorporated herein by reference and the following expressions shall, unless the context otherwise requires, bear the following meanings:-

~~“HKCC Contingent Advance Capital”~~ means ~~an arrangement put in place by the Clearing House pursuant to Rule 701(aa);~~

“HKCC Participant Additional Deposits Credit” means a credit limit in respect of HKCC Participant Additional Deposits that may be allowed to each HKCC Participant pursuant to Rule 701(ac);

“Reserve Fund Risk Predefined Limit” means an amount equal to 50% of the Reserve Fund Threshold or such other percentage as the Clearing House deems appropriate from time to time;

“Reserve Fund Threshold” means the Reserve Fund size prescribed by the Clearing House from time to time pursuant to Rule 701(ab);

CHAPTER II

HKCC PARTICIPANTSHIP

Continuing obligations of HKCC Participants

214. Every HKCC Participant must at all times during the currency of its HKCC Participantship:-

(ka) ~~meet all requirements to repay and reimburse the Clearing House on demand any amount paid by the Clearing House out of the HKCC Contingent Advance~~

~~Capital;(deleted)~~

Resignation and reimbursement of HKCC Participants' Deposits and HKCC Participant Additional Deposits

217. (ab) The liability of a resigning HKCC Participant to provide Reserve Fund Deposits, ~~and~~ to make Replenishment Contributions ~~and to repay the Clearing House in respect of the HKCC Contingent Advance Capital~~ shall be limited in accordance with the Clearing House Procedures.

CHAPTER III

REGISTRATION, CLEARING, RISK

Legal effect of registration

310. The obligations of the Clearing House to HKCC Participants under a Contract arising pursuant to Rule 309 and for the time being extant shall be limited exclusively to:-

- (f) ~~any amount which may be made available by the Clearing House under the HKCC Contingent Advance Capital and which shall be repayable by HKCC Participants to the Clearing House.~~ any HKCC Participant Additional Deposits Credit which may be made available and utilized by HKCC Participants and which, if actually applied to satisfy any liabilities of the Clearing House as a result of the default of a Defaulting HKCC Participant, shall be repayable by the Defaulting HKCC Participant to the Clearing House.

The Clearing House shall remain liable on all Contracts which remain to be settled by the Clearing House, but payment of the balance of any amounts due and delivery of the balance of any underlying commodity or instrument (or payment of money compensation in substitution therefor) shall only be made as and when, and to the extent that, the amounts, funds or assets referred to in sub-paragraphs (a) to (e) are subsequently replenished ~~and the amounts referred to in sub-paragraph (f) are repaid and further made available.~~

CHAPTER IV

**CLEARING HOUSE MARGIN, VARIATION ADJUSTMENT,
COVER FOR MARGIN AND ACCOUNTS**

Additional margin and intra-day variation adjustment

411. (aa) The Clearing House may also call for additional margin on any Business Day (i) if according to its assessment of the liabilities arising from the open Contracts of an HKCC Participant which are based on the same or similar underlying instruments, any concentration or specified threshold imposed on the HKCC Participant in accordance with the Clearing House Procedures has been exceeded; or (ii) if the projected aggregate loss (less General Collateral and any margin except addition margin collected under section 2.2.8 of the Clearing House Procedures) arising from the open Contracts of an HKCC Participant exceeds the Reserve Fund Risk Predefined Limit; or (iii) under such other circumstances as may be specified in the Clearing House Procedures.

CHAPTER V

LIMITS AND DEFAULTS

Events of default

509. Any of the following events or circumstances shall constitute an event of default upon its occurrence or if the Clearing House in its absolute discretion determines that it has occurred:
- (e) an HKCC Participant fails to comply with any of the following:
- (iii) any payment in respect of its HKCC Participant Additional Deposit, or any Replenishment Contribution demanded by the Clearing House pursuant to Rule 707A ~~or any repayment demanded by the Clearing House in respect of the HKCC Contingent Advance Capital pursuant to Rule 706C~~; or

CHAPTER VII

THE RESERVE FUND AND THE HKCC CONTINGENT ADVANCE CAPITAL

General

701. (aa) ~~In addition to establishing the Reserve Fund, the Clearing House may put in place an arrangement in the form of HKCC Contingent Advance Capital to provide additional funding in the event that its liabilities from Contracts arising pursuant to Rule 309 or Rule 313 exceed the resources available under the Reserve Fund. The level of HKCC Contingent Advance Capital support shall be determined in accordance with the Clearing House Procedures, but shall not in any event exceed the actual amount of funding made available by HKEX to the Clearing House for this purpose under the prevailing circumstances. The resources of the HKCC Contingent Advance Capital shall be applied only after the resources of the Reserve Fund have been fully depleted and to the extent any amount under the HKCC Contingent Advance Capital is so applied, HKCC Participants shall be liable to repay and reimburse such amount to the Clearing House forthwith on demand.~~(deleted)
- (ab) For the purpose of calculating the Reserve Fund size under Section 4.1 of the Clearing House Procedures, the Clearing House may, from time to time in its absolute discretion, prescribe an amount which is projected to be the maximum required size for the time being of the Reserve Fund, known as the Reserve Fund Threshold, taking into account such relevant factors as it shall consider appropriate, including any historical data and prevailing market conditions.
- (ac) In addition to establishing the Reserve Fund, the Clearing House may put in place an arrangement in the form of an HKCC Participant Additional Deposits Credit to each HKCC Participant, up to such limit as the Clearing House may from time to time determine in its absolute discretion. For the avoidance of doubt, such limit may be determined by the Clearing House on an HKCC Participant basis. The HKCC Participant Additional Deposits Credit shall only be utilized for the purpose of reducing the amount of HKCC Participant Additional Deposits payable by an HKCC Participant to the Clearing House in accordance with the Clearing House Procedures. The amount of HKCC Participant Additional Deposits Credit utilized by an HKCC Participant may be applied by the Clearing House towards satisfaction of an HKCC Participant's share of liabilities in

accordance with Rule 706, subject to the following:

- (i) The arrangement of allowing an HKCC Participant Additional Deposits Credit to each HKCC Participant is put in place by the Clearing House with the financial support of HKEX. Neither HKEX nor the Clearing House shall be required to make any actual payment to an HKCC Participant at any time in respect of the whole or any part of the HKCC Participant Additional Deposits Credit that has been utilized and/or applied as above mentioned.
- (ii) Unless otherwise determined by the Clearing House, where the whole or any part of the amount of HKCC Participant Additional Deposits Credit utilized by an HKCC Participant is applied by the Clearing House towards satisfaction of an HKCC Participant's share of the remaining liabilities pursuant to Rule 706, the HKCC Participant Additional Deposits Credit to be allowed to an HKCC Participant thereafter will correspondingly be reduced by the amount applied.
- (b) Notwithstanding that any resources of the Reserve Fund and the ~~HKCC Contingent Advance Capital~~HKCC Participant Additional Deposits Credit utilized may be applied to cover a default, this shall in no way prejudice the Clearing House's right to recover in full from the Defaulter. Monies recovered from the Defaulter (less any costs and expenses of recovery) may, but need not necessarily, be applied in replenishment of the Reserve Fund or repaid to the Clearing House. If applied, the replenishment and repayment would be in the reverse order of priority and on the same pro rata basis as that for payment out of the Reserve Fund and application of the HKCC Participant Additional Deposits Credit utilized to satisfy the liabilities pursuant to Rules 706(c) to 706(~~ef~~). It may be a term of any guarantee, facility or insurance policy that recoveries from the Defaulter be applied in a particular fashion other than in replenishment of the Reserve Fund or repaid to the Clearing House.

Accounts and accounting

702. (a) The Clearing House shall earmark the Reserve Fund in its accounts and maintain a separate record in respect of the Reserve Fund so that —

- (i) all amounts standing to the credit of;
- (ii) all resources appropriated by the Clearing House as contributions to; and
- (iii) all guarantees, facilities or policies inuring for the benefit of

the Reserve Fund from time to time shall be apparent from the accounts and so that it is apparent whether any of such amounts, guarantees, facilities or policies are of limited application, being available to support the Clearing House's obligations only under particular Contracts or classes of Contract. Without prejudice to the aforesaid, the Clearing House shall maintain a separate account in respect of all the HKCC Participant's Deposits and HKCC Participant Additional Deposits made or required to be made by HKCC Participants to the Reserve Fund.

Notify resources of Reserve Fund

703. The Clearing House shall notify HKCC Participants and the Commission on a regular basis of the resources available to the Reserve Fund, comprising the amounts standing to the credit of the Reserve Fund, and the policies, guarantees and facilities available to support the Reserve Fund ~~and the level of HKCC Contingent Advance Capital support,~~ and shall notify HKCC Participants and the Commission as to whether any part or parts of such resources is or are limited in application, being available to support the Clearing House's obligations only under particular Contracts or classes of Contracts.

Appropriations to Reserve Fund

704. (a) The Clearing House may appropriate any of its resources as contributions to the Reserve Fund. The appropriation should amount to 10% or such other percentage of the Reserve Fund size as the Clearing House may determine from time to time.

Support for Reserve Fund

705A. For the purpose of providing further additional resources to the Reserve Fund, the Clearing House shall from time to time require HKCC Participants to pay such amounts

by way of HKCC Participant Additional Deposits as the Clearing House determines necessary in accordance with the Clearing House Procedures. HKCC Participant Additional Deposits shall be applied by the Clearing House to the Reserve Fund in accordance with the HKCC Rules. For the avoidance of doubt, the HKCC Participant Additional Deposits Credit arrangements put in place by the Clearing House are not an (i) additional arrangement for the purposes of providing additional resources to the Reserve Fund; or (ii) appropriation of the Clearing House's resources to the Reserve Fund.

Use and order of application of Reserve Fund and application of HKCC Participant Additional Deposits Credit

706. (c) Subject to any agreement or arrangement pursuant to Rule 706(b), the amounts standing to the credit of the Reserve Fund shall be applied towards any payment permitted by Rule 706(a) in the following order of priority:-

(iv) Fourth, the Clearing House's resources appropriated as contributions from time to time to the Reserve Fund from time to time;

(db) In the event that there are outstanding liabilities of the Clearing House remaining after the application under sub-paragraph (i) of Rule 706(c), the Clearing House will first apply the amount of HKCC Participant Additional Deposits Credit utilized by the Defaulter immediately before the default to satisfy the outstanding liabilities, prior to making any further payments out of the Reserve Fund in accordance with the order set out in sub-paragraphs (ii) to (vii) of Rule 706(c).

(e) The amount of HKCC Participant's Deposit ~~and HKCC Participant Additional Deposit~~ in respect of each HKCC Participant to be applied pursuant to sub-paragraphs (v) ~~and (vii)~~ of Rule 706(c) ~~respectively~~ shall be calculated on a pro rata basis by reference to the HKCC Participant's share of the total HKCC Participant's Deposits ~~or total requirements for HKCC Participant Additional Deposits, as the case may be,~~ immediately before the default, excluding the portions contributed by any Defaulter and any HKCC Participant whose HKCC Participantship has been effectively terminated or revoked. The amount of HKCC Participant Additional Deposit in respect of each HKCC Participant to be applied pursuant to sub-paragraph (vii) of Rule 706(c) shall be calculated in accordance with sub-paragraph (f) below. Notwithstanding the aforesaid, if on

or before the date of the default of a Defaulter, the HKCC Participantship of an HKCC Participant is effectively terminated or revoked, its HKCC Participant's Deposit and HKCC Participant Additional Deposit will not be applied towards the default, and if on or before the date of the default, an HKCC Participant has itself been declared as a Defaulter, its HKCC Participant's Deposit and HKCC Participant Additional Deposit will only be applied towards its own default.

(f) The amount of HKCC Participant Additional Deposits in respect of each HKCC Participant to be applied pursuant to sub-paragraph (vii) of Rule 706(c) shall be determined as follows:

- (i) The Clearing House will first calculate the HKCC Participant's share of the outstanding liabilities by reference to the HKCC Participant's share of the sum of HKCC Participant Additional Deposits and HKCC Participant Additional Deposits Credit utilized in respect of all the HKCC Participants immediately before the default, excluding the portions contributed by any Defaulter and any HKCC Participant whose HKCC Participantship has been effectively terminated or revoked; and
- (ii) The HKCC Participant's share of the outstanding liabilities calculated under sub-paragraph (i) above shall be borne by way of (a) payment of its HKCC Participant Additional Deposits out of the Reserve Fund pursuant to paragraph (vii) of Rule 706(c) and (b) the application by the Clearing House of the HKCC Participant Additional Deposits Credit utilized by such HKCC Participant on a pro-rata basis, by reference to their respective proportions as compared to the sum of its HKCC Participant Additional Deposits and HKCC Participant Additional Deposits Credit utilized immediately before the default, provided that the amount borne by the HKCC Participant Additional Deposits Credit utilized shall not exceed the HKCC Participant Additional Deposits Credit allowed to such HKCC Participant. Any amount in excess of the HKCC Participant Additional Deposits Credit allowed to such HKCC Participant shall be borne by the HKCC Participant by way of the HKCC Participant Additional Deposits.

(g) Where the whole or any part of the amount(s) of HKCC Participant Additional Deposits Credit utilized is applied to satisfy the outstanding liabilities pursuant to this Rule 706, the Defaulter shall be liable to repay to the Clearing House the relevant amounts and the Clearing House shall be entitled to recover the amounts from such Defaulter, without prejudice to any other rights which the Clearing House may have. To the extent that the amount recovered by the Clearing House from such Defaulter represents the financial support provided by HKEX, the Clearing House will pay the amount received by it to HKEX.

Use of HKCC Contingent Advance Capital

- ~~706A. In the event that the Reserve Fund is insufficient to cover the Clearing House's liabilities under Contracts arising pursuant to Rule 309 or Rule 313 even after its resources have been fully depleted as a result of an application made under Rule 706, the Clearing House may apply any funding available under the HKCC Contingent Advance Capital towards the satisfaction of its outstanding liabilities, up to an amount not exceeding the HKCC Participant Additional Deposits applied pursuant to Rule 706.(deleted)~~
- ~~706B. If, in the opinion of the Clearing House, the amount available under the HKCC Contingent Advance Capital is at any time liable to be fully utilized or is unlikely to be sufficient to meet all of its outstanding liabilities, such available amount shall be applied to cover its liabilities on a pro rata basis or in such other manner as the Clearing House shall consider fair and appropriate. (deleted)~~
- ~~706C. To the extent any amount has been paid by the Clearing House out of the HKCC Contingent Advance Capital pursuant to Rule 706A, HKCC Participants (excluding those specified under Rule 706D) shall be liable to repay and reimburse such amount in full to the Clearing House on demand. The repayment or reimbursement amount required from each HKCC Participant shall be determined by the Clearing House on a pro rata basis and must be met by cash payment within the time period specified by the Clearing House. For the avoidance of doubt, such payments shall not form part of the Reserve Fund and if at any time both a demand under this Rule and a demand for Replenishment Contribution under Rule 707A or HKCC Participant Additional Deposit under Rule 705A remain to be met by an HKCC Participant, the demand made under this Rule shall have priority regardless of whether it is made at the same time as or after the demand under Rule 707A or Rule 705A and any cash payment from the HKCC~~

~~Participant shall first be applied towards the satisfaction of the demand under this Rule.(deleted)~~

706D. ~~Repayment and reimbursement of the HKCC Contingent Advance Capital shall not be required from any HKCC Participant which has been declared as a Defaulter or whose HKCC Particiantship has been effectively terminated or revoked on the day such demand for repayment or reimbursement is made, or which became an HKCC Participant only after the date the default giving rise to such demand for repayment and reimbursement occurs.(deleted)~~

Replenishment of Reserve Fund

707A. (a) Where all or part of the HKCC Participant's Deposit and HKCC Participant Additional Deposit of an HKCC Participant are applied pursuant to Rule 706, the HKCC Participant (excluding any HKCC Participant specified under Rule 707A(b)) shall on demand by the Clearing House make a Replenishment Contribution to the Reserve Fund (i) to ensure that any deficiency in its Reserve Fund Deposits following such application, including taking into account any utilized HKCC Participant Additional Deposits Credit following such application, is ~~are~~ replenished ~~to the same level as that before any application is made~~; and (ii) to provide such additional resources as the Clearing House may require to meet any liabilities that remain outstanding ~~even after any funding under the HKCC Contingent Advance Capital has been utilized pursuant to Rule 706A.~~

(c) The Clearing House shall notify HKCC Participants of any demand for Replenishment Contributions verbally or in writing as the Clearing House considers appropriate. The Clearing House may demand such Replenishment Contributions to be satisfied after or at the same time that an application is made under Rule 706. All demands for Replenishment Contributions must be met by cash payment in Hong Kong dollars or in any other currency prescribed by the Clearing House from time to time no later than the first Business Day after the demand is made by the Clearing House or within such other time period as may be specified by the Clearing House ~~and shall be without prejudice to the Clearing House's right to any HKCC Contingent Advance Capital repayment under Rule 706C.~~

**CLEARING HOUSE PROCEDURES FOR FUTURES/OPTIONS CONTRACTS
TRADED ON THE AUTOMATED TRADING SYSTEM OF THE EXCHANGE
("HKATS")**

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Chapter 2 Clearing and Settlement Procedures

2.2 Clearing House Margin

2.2.7 *Additional Clearing House Margin – concentration margin*

2.2.7.1 An additional Clearing House margin will be imposed on an HKCC Participant in respect of its open Futures and Options Contracts which are based on the same or such similar underlying financial instruments as may be determined by the Clearing House and notified to HKCC Participants from time to time in the event that when assessed by reference to the historical data from each of the realized stressed market conditions and/or hypothetical data for each of the unrealized stressed market conditions as the Clearing House may determine:

- (a) the projected aggregate loss (less any Clearing House margin) arising from such open Futures and Options Contracts registered in the Omnibus Client, Individual Client, Client Offset Claim, Sink, House and Market Maker Accounts (“Concentrated Net Projected Loss”) of the HKCC Participant is greater than 30 percent of the total Concentrated Net Projected Loss of all HKCC Participants; and

- (b) the total Concentrated Net Projected Loss of all HKCC Participants arising from such open Futures and Options Contracts based on the same or similar underlying financial instruments exceeds HK\$500 million.

2.2.7.2 The additional Clearing House margin to be imposed pursuant to section 2.2.7.1 above shall be a percentage of the otherwise applicable margin requirement based on the following or such other percentage as the Chairman may consider appropriate.

<u>Concentrated</u> Net Projected Loss of the HKCC Participant vs all HKCC Participants	% of applicable margin requirement
More than 30% and equal to or less than 40%	20%
More than 40% and equal to or less than 50%	25%
More than 50% and equal to or less than 60%	30%
More than 60% and equal to or less than 80%	40%
More than 80%	50%

Notwithstanding the above, an HKCC Participant accounting for greater than 80% of the total Concentrated Net Projected Loss is only required to pay 40% (instead of 50%) of the applicable margin requirement during the first five (5) Business Days when such percentage remains greater than 80%. In the event that an HKCC Participant's Concentrated Net Projected Loss remains at a level greater than 80% of the total Concentrated Net Projected Loss for six (6) consecutive Business Days or more, the HKCC Participant must pay 50% of the applicable margin requirement as additional Clearing House margin from the sixth (6th) Business Days onwards.

2.2.8 Additional Clearing House Margin – Reserve Fund additional margin

2.2.8.1 An additional Clearing House margin will be imposed on an HKCC Participant in respect of all its open Futures and Options Contracts and notified to HKCC Participants from time to time in the event that when assessed by reference to the historical data from each of the

realized stressed market conditions and/or hypothetical data for each of the unrealized stressed market conditions as the Clearing House may determine:

- (a) the projected aggregate loss (less General Collateral and any margin except additional Clearing House margin collected under this section 2.2.8) arising from all its open Futures and Options Contracts of the HKCC Participant (“Reserve Fund Net Projected Loss”) exceeds the Reserve Fund Risk Predefined Limit; and
- (b) the prevailing Reserve Fund size is equal to the Reserve Fund Threshold.

2.2.8.2 The additional Clearing House margin to be imposed pursuant to section 2.2.8.1 above shall be the amount by which the Reserve Fund Net Projected Loss exceeds the Reserve Fund Risk Predefined Limit. For the avoidance of doubt, if the additional Clearing House margin is required under two or more stressed market conditions, the higher or highest (as the case may be) additional Clearing House margin amount shall be imposed.

2.2.8.3 Notwithstanding sections 2.2.8.1 and 2.2.8.2, should HKCC accept the HKCC Participant’s request to waive the whole or part of the additional Clearing House margin requirement, the HKCC Participant must close out, hedge or transfer to any other HKCC Participant such positions as may reduce the Reserve Fund Net Projected Loss to an amount which is less than the sum of the Reserve Fund Predefined Limit and additional Clearing House margin set forth in section 2.2.8.2 maintained with the Clearing House if any by the end of the same Business Day as the additional Clearing House margin collection due date, failing which the Clearing House may subsequently close out, hedge or transfer such positions on behalf of the HKCC Participant.

2.2.8.4 Where additional Clearing House margin is collected pursuant to this section, interest thereon may be paid or charged by the Clearing House at such positive or negative rate as it may determine from time to time in accordance with prevailing bank savings rates. Any interest accrued or charged shall be posted to the HKCC Participant's CCMS Collateral Account on the first Business Day of the following month.

Chapter 4 Reserve Fund Contribution

4.1 HKCC Participant Additional Deposits

On the first Business Day of every month, the Clearing House will assess the adequacy of the Reserve Fund to cover the maximum daily risk exposure of the Reserve Fund during the most recent 60 Business Days and will determine whether any HKCC Participant Additional Deposits would be required from HKCC Participants, taking into consideration the risk exposure of the Reserve Fund, the Reserve Fund Threshold and the prevailing market conditions.

HKCC Participant Additional Deposits will be demanded such that 90% of the sum of (i) the existing aggregate value of the Reserve Fund after the injection of the HKCC Participant Additional Deposits, together with the maximum amount of funding that may be available under the HKCC Contingent Advance Capital (i.e. an amount which equals the total amount of HKCC Participant Additional Deposits after the injection) and resources appropriated by the Clearing House as contributions to the Reserve Fund; and (ii) the aggregate HKCC Participant Additional Deposits Credit utilized by all the HKCC Participants, will cover all the risk exposures of the Reserve Fund throughout the most recent 60 Business Days. If the sum determined above is higher than the Reserve Fund Threshold, it shall be reduced to an amount equal to the Reserve Fund Threshold.

The total HKCC Participant Additional Deposits required and the resources appropriated by the Clearing House as contributions to the Reserve Fund can be obtained using the following formulae:

~~$$MEX = 90\% \times (BEF + HPAD + CAC)$$~~

~~$$MEX = 90\% \times (BEF + HPAD + HPAD)$$~~

~~$$HPAD = (MEX \div 90\% - BEF) \div 2$$~~

If MEX is lower than BEF:

$$CHA = 10\% \times (BEF \div 90\%)$$

$$HPAD = 0$$

If MEX is higher than or equal to BEF but lower than 90% of the Reserve Fund Threshold:

$$CHA = 10\% \times (MEX \div 90\%)$$

$$HPAD = (MEX \div 90\% - BEF - CHA)$$

If MEX is higher than 90% of the Reserve Fund Threshold:

$$CHA = 10\% \text{ of Reserve Fund Threshold}$$

$$HPAD = \text{Reserve Fund Threshold} - BEF - CHA$$

where:

MEX denotes the maximum daily risk exposure of the Reserve Fund during the most recent 60 Business Days;

BEF denotes the basic elements of the Reserve Fund (i.e. the existing aggregate value of the Reserve Fund less the total HKCC Participant Additional Deposits and resources appropriated by the Clearing House as contributions to the Reserved Fund);

HPAD denotes the total HKCC Participant Additional Deposits required; and

~~*CAC* denotes the maximum amount which may be made available under the HKCC Contingent Advance Capital (which equals the total HKCC Participant Additional Deposits after the injection).~~

CHA denotes the resources appropriated by the Clearing House as contributions to the Reserve Fund, which should amount to 10% or such other percentage of the Reserve Fund size as the Clearing House may determine from time to time, in which case the percentage in the formulae above shall be adjusted accordingly.

Aside from the demands made under regular monthly assessments, HKCC Participant Additional Deposits will be recalculated and demanded in accordance with the abovementioned formula if

(a) the daily risk exposure of the Reserve Fund as calculated on each Business Day exceeds 90% of; and

(b) Reserve Fund Threshold is higher than

the sum of (i) the existing aggregate value of the Reserve Fund (i.e. the basic elements of the Reserve Fund plus the total HKCC Participant Additional Deposits and the resources appropriated by the Clearing House as contributions to ~~in~~ the Reserve Fund); and (ii) ~~the maximum amount of funding which may be made available under the HKCC Contingent Advance Capital~~ aggregate HKCC Participant Additional Deposits Credit utilized by all the HKCC Participants, provided that the Chairman may, at his sole discretion, waive the demand of HKCC Participant Additional Deposits under one of the following circumstances:

(a) where the relevant Business Day (i.e. day of calculation) falls on the last four Business Days of the month and the current risk exposure of the Reserve Fund does not exceed the sum of (i) the existing aggregate value of the Reserve Fund; and (ii) the aggregate HKCC ~~Contingent Advance Capital~~ Participant Additional Deposits Credit utilized by all the HKCC Participants by more than 30%; and

(b) where the relevant Business Day does not fall on the last four Business Days of the month and the current risk exposure of the Reserve Fund does not exceed the sum of (i) the existing aggregate value of the Reserve Fund; and (ii) the aggregate HKCC ~~Contingent Advance Capital~~ Participant Additional Deposits Credit utilized by all the HKCC Participants by more than 15%.

4.2 Calculation Methodology for each HKCC Participant's contribution to HKCC Participant Additional Deposits

4.2.1 The risk exposure of each HKCC Participant will be measured based on its total net margin liabilities. The net margin liabilities of each account shall be the sum of the net margin requirements for each Market in that account. For this purpose, net margin liabilities include Clearing House margin but exclude additional margin.

4.2.4 The relative weighting of each HKCC Participant's daily average total net margin liabilities as compared to the daily average market total net margin liabilities is then used to calculate the ~~required~~ contribution from the HKCC Participant based on the following formula, rounded up to the nearest dollar:

~~Required~~Calculated contribution from each HKCC Participant

$$= \frac{\text{Daily average total net margin liabilities for the HKCC Participant}}{\text{Daily average market total net margin liabilities}} \times \frac{\text{Total HKCC Participant Additional Deposits}}{\text{Participant Additional Deposits}}$$

4.2.4A The calculated contribution of each HKCC Participant, determined as above, will be compared with the HKCC Participant Additional Deposits Credit allowed to each HKCC Participant to determine the HKCC Participant Additional Deposits required from each HKCC Participant in the following manner:

- (a) If the calculated contribution is equal to the HKCC Participant Additional Deposits Credit, no HKCC Participant Additional Deposits will be required and the HKCC Participant Additional Deposits Credit will be treated as fully utilized by the HKCC Participant.
- (b) If the calculated contribution exceeds the HKCC Participant Additional Deposits Credit, the excess amount will be the HKCC Participant Additional Deposits required and the HKCC Participant Additional Deposits Credit will be treated as fully utilized by the HKCC Participant.
- (c) If the calculated contribution is less than the HKCC Participant Additional Deposits Credit, no HKCC Participant Additional Deposits will be required

and the amount of HKCC Participant Additional Deposits Credit will be treated as utilized by the HKCC Participant by an amount equal to the calculated contribution.

4.4A Settlement Time for HKCC Participants

4.4B Settlement Time for HKCC appropriation

If as a result of an assessment of the adequacy of the Reserve Fund, additional resources should be appropriated by the Clearing House as contributions to the Reserve Fund or surplus resources should be released to the Clearing House, such appropriation or release will under normal circumstances be effected on the same day as the day of payment by or release to HKCC Participants of HKCC Participant Additional Deposits following such assessment.

4.5 Illustration

The following example illustrates how HKCC Participant Additional Deposits are collected and released. For illustration purposes only, the following parameters will be applied:

- (ii) a regular monthly assessment of the adequacy of the Reserve Fund falls on Day 4, being the first Business Day of the month; ~~and~~
- (iii) a hypothetical Reserve Fund size of HK\$200,000,000 (comprising ~~only~~ the basic elements of the Reserve Fund of HK\$180,000,000 and HK\$20,000,000 appropriated by the Clearing House to the Reserve Fund with no HKCC Participant Additional Deposits);
- (iv) an HKCC Participant Additional Deposits Credit of HK\$1,000,000 is allowed to each HKCC Participant; and
- (v) a Reserve Fund Threshold of HK\$320,000,000.

Total net margin liabilities (HK\$ equivalent)

<u>Date</u>	<u>Exposure</u>	<u>HKCC Participant A (GCP)</u>	<u>HKCC Participant B (CP)</u>	<u>HKCC Participant C (CP)</u>
Day 1	150,000,000	50,000,000	30,000,000	20,000,000
Day 2	150,250,000	50,000,000	30,000,000	20,000,000
Day 3	279,000,000	50,000,000	30,000,000	20,000,000
Day 4	306,000,000	150,000,000 <u>200,000,000</u>	140,000,000 <u>180,000,000</u>	10,000,000 <u>20,000,000</u>
		<u>.000</u>	<u>0,000</u>	<u>000</u>

The requirements for HKCC Participant Additional Deposits will be calculated as follows:

4.5.1 On Day 4, the maximum risk exposure during the most recent 3 Business Days

= HK\$279,000,000

The resources appropriated by the Clearing House

= HK\$ (279,000,000 ÷ 0.9) x 10%

= HK\$31,000,000

Hence, Clearing House shall appropriate HK\$(31,000,000-20,000,000) = HK\$11,000,000 more to the Reserve Fund on Day 4.

Total requirements for HKCC Participant Additional Deposits

= HK\$ (279,000,000 ÷ 0.9 - ~~200,000,000~~180,000,000 - 31,000,000) ÷ ~~2~~

= HK\$~~55,000,000~~99,000,000

4.5.4 Since HKCC Participant A is a General Clearing Participant which is only required to contribute when its contribution requirement is greater than HK\$6 million, the sum of HK\$6 million will need to be added to the total HKCC Participant Additional Deposits figure in the formula set forth in section 4.2.4 in order to obtain the additional HKCC Participant Additional Deposits of

HK\$~~55,000,000~~99,000,000.

Calculated cContribution from HKCC Participant A

= HK\$ $(\frac{50,000,000}{100,000,000} \times \frac{61,000,000}{105,000,000})$

= HK\$~~30,500,000~~52,500,000

The calculated contribution will then be compared with its HKCC Participant Additional Deposits Credit of HK\$1,000,000. Since HKCC Participant A is a General Clearing Participant, it will in effect receive a further HK\$6,000,000 credit and its requirement for HKCC Participant Additional Deposit will be HK\$24,500,000 reduced by HK\$7,000,000 in total to HK\$45,500,000.

Similarly, the HKCC Participant Additional Deposits required from HKCC Participants B and C are HK\$~~18,300,000~~30,500,000 and HK\$~~12,200,000~~20,000,000 respectively.

The total amount of HKCC Participant Additional Deposits that will be demanded from HKCC Participants A, B and C is ~~HK\$55,000,000~~ plus the aggregate HKCC Participant Additional Deposits Credit of HK\$3,000,000 utilized by all HKCC Participants is HK\$99,000,000, which is the amount required to cover the risk exposure as calculated in section 4.5.1.

- 4.5.6 On Day 5, the condition for recalculation stipulated in section 4.1 is triggered. The maximum risk exposure during the most recent 3 Business Days is HK\$306,000,000.

Since the maximum risk exposure is above 90% of the Reserve Fund Threshold (i.e. HK\$306,000,000 > 90% x HK\$320,000,000), by A applying the formula in section 4.1, the resources appropriated by the Clearing House

= HK\$320,000,000 x 10%

= HK\$32,000,000

Hence, Clearing House shall appropriate HK\$(32,000,000-31,000,000) = HK\$1,000,000 more to the Reserve Fund on Day 5.

The new total requirement for HKCC Participant Additional Deposits is:

$$= \text{HK\$} (306,000,000 \div 0.9320,000,000 - 200,000,000 \div 180,000,000 - 32,000,000) \div 2$$

$$= \text{HK\$} 70,000,000 \div 108,000,000$$

Using the most recent 3 Business Days' total net margin liabilities of each HKCC Participant, the required average total net margin contributions from liabilities of HKCC Participants A, B and C are HK\$10,000,000 100,000,000, HK\$60,000,000 80,000,000 and HK\$30,000,000 20,000,000 respectively.

Since HKCC Participant A is a General Clearing Participant, up to HK\$6,000,000 of the required amount can be waived. In this case, since its calculated HKCC Participant Additional Deposit is equal to HK\$38,000,000 57,000,000, after comparing with its HKCC Participant Additional Deposits Credit, contribution in the amount of HK\$32,000,000 50,000,000 will be required from HKCC Participant A.

HKCC Participant	Existing Contribution	Contribution Requirement	Amount to be Collected/(Released)
A	HK\$ <u>24,500,000</u> <u>4</u> <u>5,500,000</u>	HK\$ <u>32,000,000</u> <u>5</u> <u>0,000,000</u>	HK\$ <u>7,500,000</u> <u>4,500</u> <u>,000</u>
B	HK\$ <u>18,300,000</u> <u>3</u> <u>0,500,000</u>	HK\$ <u>30,400,000</u> <u>4</u> <u>4,600,000</u>	HK\$ <u>12,100,000</u> <u>14,1</u> <u>00,000</u>
C	HK\$ <u>12,200,000</u> <u>2</u> <u>0,000,000</u>	HK\$ <u>7,600,000</u> <u>10</u> <u>400,000</u>	(HK\$ <u>4,600,000</u> <u>9,60</u> <u>0,000</u>)

By comparing each HKCC Participant's new contribution requirement with its existing contribution, HKCC Participants A and B will be required to pay HK\$7,500,000 4,500,000 and HK\$12,100,000 14,100,000 respectively and HKCC Participant C will be refunded HK\$4,600,000 9,600,000.

4.6 Termination of HKCC Participants

4.6.1 Resignation

- aa) Any demand for the payment of Reserve Fund Deposits ~~or the repayment of the HKCC Contingent Advance Capital~~ made by the Clearing House on or preceding the Business Day the Clearing House receives a Resignation Notice from an HKCC Participant must be met in full by the resigning HKCC Participant. Any demand made by the Clearing House for Replenishment Contribution must also be met in full by an HKCC Participant unless on the date of demand or the next Business Day after the demand is made, the Clearing House receives a Resignation Notice from the HKCC Participant, in which case its liability will be limited in the manner prescribed in paragraph (ab) below.
- ab) Where an HKCC Participant has submitted a Resignation Notice to the Clearing House, its liability to provide Reserve Fund Deposits, and to make Replenishment Contributions ~~and to repay the Clearing House in respect of the HKCC Contingent Advance Capital~~ pursuant to any demands made by the Clearing House (i) for Reserve Fund Deposits ~~and repayment of the HKCC Contingent Advance Capital~~ from the Business Day following receipt of its Resignation Notice and (ii) for Replenishment Contributions from the Business Day immediately preceding the Business Day on which the Clearing House receives the Resignation Notice shall be limited to an amount which equals ~~the aggregate of~~ its Reserve Fund Deposits requirement ~~and its HKCC Contingent Advance Capital repayment requirement (equivalent to its requirement for HKCC Participant Additional Deposit)~~ on the Business Day the Clearing House receives the Resignation Notice, plus two times such ~~aggregated~~ amount.

For example, assume that (i) the Clearing House issues a notice demanding Replenishment Contribution of HK\$7,000,000 from an HKCC Participant on a particular Business Day; (ii) the Clearing House receives a Resignation Notice from the HKCC Participant on the following Business Day; (iii) on the Business Day the Clearing House receives the Resignation Notice, its HKCC Participant's Deposit is HK\$1,500,000 and the HKCC Participant Additional Deposit already demanded by the Clearing House but remains to be settled by the resigning HKCC Participant is HK\$500,000 ~~(which amount is equivalent to~~

~~its HKCC Contingent Advance Capital repayment requirement)1,000,000.~~ In this case, the maximum liability of the resigning HKCC Participant to contribute to the Reserve Fund ~~and to repay the HKCC Contingent Advance Capital~~ would be HK\$7,500,000 (i.e. three times the aggregate of its HKCC Participant's Deposit of HK\$1,500,000, ~~and~~ HKCC Participant Additional Deposit requirement of HK\$500,000 ~~and HKCC Contingent Advance Capital repayment requirement of HK\$500,0001,000,000~~). In other words, it would only be obliged to contribute a further amount of HK\$~~5,500,000~~5,000,000 in addition to its existing Reserve Fund Deposits requirement of HK\$~~2,000,000~~2,500,000.