

**Rules and Procedures of HKFE Clearing Corporation Limited**

**CHAPTER VII**

**THE RESERVE FUND AND  
THE HKCC CONTINGENT ADVANCE CAPITAL**

**Replenishment of Reserve Fund**

707A.(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 ~~third~~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")**

**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 ~~2060~~ 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 and the prevailing market conditions.

HKCC Participant Additional Deposits will be demanded such that ~~80%90%~~ of 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), will cover all the risk exposures of the Reserve Fund throughout the most recent ~~2060~~ Business Days.

The total HKCC Participant Additional Deposits required can be obtained using the following formula:

$$MEX = \del{80\%90\%} x (BEF + HPAD + CAC)$$

$$MEX = \del{80\%90\%} x (BEF + HPAD + HPAD)$$

$$HPAD = (MEX \div \del{80\%90\%} - BEF) \div 2$$

where:

*MEX* denotes the maximum daily risk exposure of the Reserve Fund during the most recent ~~2060~~ 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);
- HPAD* denotes the total HKCC Participant Additional Deposits; 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).

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 the daily risk exposure of the Reserve Fund as calculated on each Business Day exceeds ~~80%~~90% of 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 in the Reserve Fund); and (ii) the maximum amount of funding which may be made available under the HKCC Contingent Advance Capital ~~for two consecutive Business Days~~, 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 existing aggregate value of the Reserve Fund and the HKCC Contingent Advance Capital 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 existing aggregate value of the Reserve Fund and the HKCC Contingent Advance Capital by more than 15%.

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

4.2.2 The Clearing House will calculate the daily average total net margin liabilities for each HKCC Participant during the most recent ~~2060~~ Business Days as follows:

*Daily average total net margin liabilities of an HKCC Participant*

$$= \frac{\sum \text{Total net margin liabilities for the HKCC Participant on } j^{\text{th}} \text{ day}}{\underline{2060}}$$

where  $j = 1, 2, 3, \dots, \underline{1959}, \underline{2060}$

#### 4.4A Settlement Time

In the event HKCC Participant Additional Deposits are recalculated by the Clearing House on any Business Day, a clearing report showing the amount payable or that may be released will be distributed to each HKCC Participant on the same Business Day. Any HKCC Participant Additional Deposit payable by an HKCC Participant will be debited from its House CCMS Collateral Account via the Direct Margin Debiting System (DMDS) by ~~12:00 noon~~4:00 p.m. on the ~~third~~first Business Day, unless otherwise specified by the Clearing House, after the distribution of the clearing report. HKCC Participants shall ensure that sufficient funds are available in their DMDS House accounts to meet any HKCC Participant Additional Deposit payable by them as demanded in their clearing reports. Any surplus HKCC Participant Additional Deposit will be credited to its House CCMS Collateral Account via the DMDS on the same day. For the avoidance of doubt, any HKCC Participant Additional Deposit settled via the DMDS shall be in Hong Kong dollars or in any other currency prescribed by the Clearing House from time to time.

#### 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:

- (i) the Reserve Fund is hypothetically sized to cover the maximum risk exposure throughout the most recent 3 Business Days instead of the prescribed ~~2960~~ Business Days;
- (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 with no HKCC Participant Additional Deposits).

Total net margin liabilities (HK\$ equivalent)

Date	Exposure	HKCC Participant A (GCP)	HKCC Participant B (CP)	HKCC Participant C (CP)
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	<del>262,200,000</del> <u>279,000,000</u>	50,000,000	30,000,000	20,000,000
Day 4	<del>150,500,000</del> <u>306,000,000</u>	<del>10,000,000</del> <u>150,000,000</u>	<del>60,000,000</del> <u>140,000,000</u>	<del>30,000,000</del> <u>10,000,000</u>
	<del>289,850,000</del>	<del>10,000,000</del>	<del>60,000,000</del>	<del>30,000,000</del>
Day 5	<del>289,850,000</del>	<del>10,000,000</del>	<del>60,000,000</del>	<del>30,000,000</del>
Day 6	<del>292,600,000</del>	<del>10,000,000</del>	<del>60,000,000</del>	<del>30,000,000</del>

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

$$= \text{HK\$} \frac{262,200,000 + 279,000,000}{2}$$

Total requirements for HKCC Participant Additional Deposits

$$= \text{HK\$} \left( \frac{262,200,000 + 279,000,000}{2} - 200,000,000 \right) \div 2$$

$$= \text{HK\$} \frac{63,875,000 + 55,000,000}{2}$$

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\$~~63,875,000~~55,000,000.

Contribution from HKCC Participant A

$$= \text{HK\$} \left( \frac{50,000,000}{100,000,000} \times \frac{63,875,000 + 55,000,000}{2} \right)$$

$$= \text{HK\$} \frac{34,937,500 + 30,500,000}{2}$$

Since HKCC Participant A is a General Clearing Participant, it will in effect receive HK\$6,000,000 credit and its requirement for HKCC Participant Additional Deposit will be HK\$~~28,937,500~~24,500,000.

Similarly, the HKCC Participant Additional Deposits required from HKCC Participants B and C are HK\$~~20,962,500~~18,300,000 and HK\$~~13,975,000~~12,200,000 respectively.

The total amount of HKCC Participant Additional Deposits that will be demanded from HKCC Participants A, B and C is HK\$~~63,875,000~~55,000,000, which is the amount required to cover the risk exposure as calculated in section 4.5.1.

4.5.6 On Day 75, the condition for recalculation stipulated in section 4.1 is triggered. The maximum risk exposure during the most recent 3 Business Days is HK\$~~292,600,000~~306,000,000.

Applying the formula in section 4.1, the new total requirement for HKCC Participant Additional Deposits is:

$$= \text{HK\$} (\underline{292,600,000} \underline{306,000,000} \div \underline{0.8-0.9} - 200,000,000) \div 2$$

$$= \text{HK\$} \underline{82,875,000} \underline{70,000,000}$$

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 HKCC Participant Additional Deposit is equal to HK\$~~8,887,500~~38,000,000, contribution in the amount of HK\$~~2,887,500~~32,000,000 will be required from HKCC Participant A.

HKCC Participant	Existing Contribution	Contribution Requirement	Amount to be Collected/(Released)
A	HK\$ <del>28,937,500</del> <u>24,500,000</u>	HK\$ <del>2,887,500</del> <u>32,000,000</u>	<del>(HK\$26,050,000)</del> <u>7,500,000</u>
B	HK\$ <del>20,962,500</del> <u>18,300,000</u>	HK\$ <del>53,325,000</del> <u>30,400,000</u>	HK\$ <del>32,362,500</del> <u>12,100,000</u>
C	HK\$ <del>13,975,000</del> <u>12,200,000</u>	HK\$ <del>26,662,500</del> <u>7,600,000</u>	<del>(HK\$12,687,500)</del> <u>4,600,000</u>

By comparing each HKCC Participant's new contribution requirement with its existing contribution, HKCC Participants A and B will be required to pay refunded HK\$~~26,050,000~~7,500,000 and HK\$~~12,100,000~~ respectively and HKCC Participants ~~B and C~~ will be ~~required to pay~~refunded HK\$~~32,362,500~~4,600,000 and HK\$~~12,687,500~~ respectively.

## 4.6 Termination of HKCC Participantship

### 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 within three Business Days 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, 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 ~~three-the~~ Business Days ~~before-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.