

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

**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:-

“expiry” means the last trading day or Expiry Day, as the case may be;

“last trading day” means the last day for trading in an Exchange Contract, ~~as specified in the Contract Specifications which has a delivery month specified pursuant to the Exchange Rules;~~

**CHAPTER IV**

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

**Closing Quotations**

412. Where applicable, the Closing Quotation in respect of each futures ~~expiry delivery month~~ or option series, as the case may be, shall be determined by the Clearing House pursuant to the Clearing House Procedures and shall be used to calculate the variation adjustment.

**CHAPTER V**

**LIMITS AND DEFAULTS**

**Position limits**

501. The Clearing House may at any time in its absolute discretion:-
- (a) prescribe the maximum number or value of long or short open Contracts in respect of any of the Markets operated by the Exchange in respect of any or all futures ~~expiries delivery months~~ or option series which may at any time be registered in the name of all HKCC Participants or any particular HKCC Participant; or

- (b) regulate or limit the net long or net short position in any of the Markets operated by the Exchange which HKCC Participants or any particular HKCC Participant may hold, or control in respect of any or all futures ~~expiries~~ ~~delivery months~~ or option series over such a period as the Clearing House may specify.

Powers of the Chairman on default

510. Notwithstanding any other provision of these Rules, the Clearing House may by decision of the Chairman declare an HKCC Participant to be a Defaulter and/or take any of the following actions or such other action as the Chairman may think fit against the HKCC Participant upon the occurrence of an event of default without the need for any prior notice to or consent of the HKCC Participant:

- (i) to regulate or limit the net long or net short position which the HKCC Participant may hold or control or to prescribe the maximum number or value of long or short open Contracts which may be registered in the name of the HKCC Participant in respect of any of the Markets operated by the Exchange in respect of any or all futures ~~expiries~~ ~~delivery months~~ or option series;

Compulsory closing out, transfer, sale and settlement

514. The reference in Rule 510(b) to the settling of Contracts means settling in accordance with the following provisions:

- (a) where a Defaulting HKCC Participant has registered in its name with the Clearing House Contracts for the purchase and sale of an equal quantity of a particular underlying commodity or instrument for ~~the same~~:
  - (i) futures ~~with the same expiry~~ ~~delivery month~~; or
  - (ii) option series ~~with the same expiry~~,

(but not necessarily at the same price), the Clearing House shall be entitled to treat each of those Contracts as if it had been closed out at the applicable Closing Quotation on the date of default.

**APPENDIX A**

**Fees**

<b>Description</b>	<b>Amount<sup>1</sup></b>
<i>Settlement Fees (Futures) and Exercise Fees (Options)</i>	
<u>Equity index products</u>	
<u>Weekly HSI Options</u>	<u>10.00/Lot</u>
<u>Weekly HSCEI Options</u>	<u>3.50/Lot</u>

<sup>1</sup> Unless otherwise specified, the amounts listed in this appendix are in HK dollars

**APPENDIX B**

**T+1 Session Cutoff Time**

<b>Products</b>	<b>Time</b>
<u>Equity Index Products</u>	
<u>Weekly HSI Options</u>	<u>3:00 a.m.</u>
<u>Weekly HSCEI Options</u>	<u>3:00 a.m.</u>

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

**Chapter 2 Clearing and Settlement Procedures**

2.2 Clearing House Margin

2.2.3 *Components of Net Margining*

2.2.3.3 *Intracommodity ~~(Intermonth)~~ Spread Charge*

As PRiME scans underlying prices within a single underlying instrument, it assumes that price moves correlate perfectly across contracts with different expiries ~~months~~. Since price moves across contracts months with different expiries do not generally exhibit perfect correlation, PRiME adds an Intracommodity ~~(Intermonth)~~ Spread Charge to the Scan Risk associated with each Combined Commodity under net margining. For each spread formed, PRiME assesses a charge per spread at such charge rate as may be specified by the Clearing House from time to time. The total of all of these charges for a particular Combined Commodity constitutes the Intracommodity ~~(Intermonth)~~ Spread Charge for that Combined Commodity.

2.2.5 *Clearing House Margin Liability Calculation for Net Margining*

The method of calculating the amount of cover for Clearing House margin for designated Contracts or accounts of an HKCC Participant margined on a net basis is as follows:

- a) The same type of Futures Contract with the same expiry ~~in each delivery month~~ is each assessed to calculate the total net uncovered Contracts for that expiry ~~month~~.
- c) For Futures/Option Contracts within the same Combined Commodity, the long or short net uncovered Futures Contracts infor each expiry ~~delivery month~~, together with the long or short net uncovered Option Contracts in each series, are margined on a portfolio basis.

In calculating margin on a portfolio basis, the Scan Risk, the Intracommodity ~~(Intermonth)~~ Spread charge, the Spot Month Charge and the Physical Delivery Contract Charge of the portfolio are added together to determine the Commodity Risk. The Commodity Risk is the total risk of all Futures/Option Contracts within the same Combined Commodity.

2.2.6 *Clearing House Margin for Different Types of Clearing Accounts in DCASS*

2.2.6.3 *Client Offset Claim Account*

- c) Positions within the same Combined Commodity or positions within specified pairs of Combined Commodities that are eligible for Intercommodity Spread Credits can be offset according to the following list:

Long Futures	+	Short Futures
Long Futures	+	Short Call
Long Futures	+	Long Put
Long Call	+	Short Futures
Long Call	+	Short Call
Long Call	+	Long Put
Short Put	+	Short Futures
Short Put	+	Short Call
Short Put	+	Long Put
Conversions*		
Reversals**		

\* A Conversion consists of a short call and long put ~~in the same month~~ with the same expiry and strike price and a long Futures ~~in~~with the same ~~month~~expiry.

\*\* A Reversal consists of a long call and short put ~~in the same month~~ with the same expiry and strike price and a short Futures ~~in~~with the same ~~month~~expiry.

For positions within the same Combined Commodity, offset positions are claimed on a one-to-one basis except those relating to the offset of positions in the (1) HSI Futures/Options, Weekly HSI Options and Mini-HSI Futures/Options Contracts or (2) HSCEI Futures/Options, Weekly HSCEI Options and Mini-HSCEI Futures/Options Contracts, which are claimed on the basis of (1) one HSI Futures/Options Contract or one Weekly HSI Options Contract against a maximum of five Mini-HSI Futures/Options Contracts or (2) one HSCEI Futures/Options Contract or one Weekly HSCEI Options Contract against a maximum of five Mini-HSCEI Futures/Options Contracts, as the case may be.

2.2.7 *Additional Clearing House Margin – concentration margin*

- 2.2.7.3 Notwithstanding sections 2.2.7.1 and 2.2.7.2, no additional Clearing House margin will be imposed on open Futures and Options Contracts other than Physical Delivery Contracts in the spot week or spot month during the last two trading days on such spot week or spot month contracts unless the Chairman or his

designee determines otherwise. Additional Clearing House margin will be imposed on a Physical Delivery Contract unless an HKCC Participant has provided the underlying commodity or instrument to the Clearing House as collateral for Clearing House margin in sufficient quantity to cover its positions in the Physical Delivery Contract with upside risk.

## 2.3 Variation Adjustment

### 2.3.1 *Futures Contracts – Closing Quotation*

2.3.1.1 Except for the Closing Quotation of (i) the Mini-Hang Seng Index Futures Contract, which shall be the Closing Quotation set for the Hang Seng Index Futures Contract; and (ii) the Mini-Hang Seng China Enterprises Index Futures Contract, which shall be the Closing Quotation set for the Hang Seng China Enterprises Index Futures Contract, prices of Futures Contracts entered into during the final two minutes of trading prior to the Market close will normally be used by the Clearing House to determine the Closing Quotation for each Futures Contract. Unless otherwise determined by the Clearing House under special circumstances, the Closing Quotation of a Futures Contract, other than the Mini-Hang Seng Index Futures Contract and Mini-Hang Seng China Enterprises Index Futures Contract shall be calculated as follows:

- (b) If there was no trade during the final two-minute period, the Closing Quotation will be calculated as the midpoint between the best bid price amongst the last bid price(s) that had any corresponding offer price(s) during the final two-minute period and the best corresponding offer price, rounded to the nearest tick. However, if the Clearing House determines that the bid-offer spread is not consistent with those of other ~~expiries~~months, and the resultant Closing Quotation does not reflect the true market conditions, the Clearing House will disregard this Closing Quotation and proceed to the procedures laid down in paragraph (ba).

### 2.3.2 *Option Contracts – Closing Quotation*

- (b) If there was no trade during the final fifteen-minute period, the Closing Quotation will be calculated as the midpoint between the best bid price amongst the last bid price(s) that had any corresponding offer price(s) during the final fifteen-minute period and the best corresponding offer price, rounded to the nearest tick. However, if the Clearing House determines that the bid-offer spread is not consistent with those of other ~~month~~expiries with similar strike prices, and the resultant Closing Quotation does not reflect the true market conditions, the Clearing House will disregard this Closing Quotation and proceed to the procedures laid down in paragraph (c).

- (c) If neither a trade nor a pair of bid and offer prices was available during the final fifteen-minute period, or if the Clearing House determines according to paragraph (b) that the procedures laid down in this paragraph (c) should be followed, the Closing Quotation of an Option Contract shall be calculated by the Clearing House using the Black's Model as follows:-

$$C = e^{-rT} [FN(d_1) - XN(d_2)]$$

$$P = e^{-rT} [XN(-d_2) - FN(-d_1)]$$

$$d_1 = \frac{\ln(F / X) + \frac{1}{2}\sigma^2 T}{\sigma\sqrt{T}}$$

$$d_2 = d_1 - \sigma\sqrt{T}$$

where  $C$  and  $P$  are the Closing Quotations of the call and put Options respectively;  $N(x)$  is the standard normal distribution function of  $x$ ;  $X$  is the strike price;  $T$  is the time to maturity in a 365-day year;  $r$  is the annual risk-free rate;  $F$  is the price of the underlying; and  $\sigma$  is the volatility of the price of the underlying.

- (1) The Clearing House will determine the price of the underlying of the Option Contract with reference to the Closing Quotation of the corresponding Futures Contract; or if the Option Contract does not have a Futures Contract with the same ~~contract~~ ~~month~~~~expiry~~, other information provided by Market Makers in the relevant Market; or the premiums/discounts of the corresponding underlying of the Option Contract to the spot month Futures Contract on the previous Business Day.
- (2) The Clearing House will determine the volatility of each option series with reference to the prices of the underlying instrument or commodity and the following:
  - the prices of the Futures and Option Contracts ~~with~~~~ef~~ the same ~~expiry~~~~month~~ during the final fifteen-minute period;
  - the prices of the Futures and Option Contracts ~~with~~~~ef~~ the same ~~expiry~~~~month~~ prior to the final fifteen-minute period if no sufficient prices of the Futures and Option Contracts ~~with~~~~ef~~ the same ~~expiry~~~~month~~ during the final fifteen-minute period were available to determine the volatility of such option series;
  - the volatility and skewness of the Option Contracts ~~with~~~~ef~~ the same ~~expiry~~~~month~~ on the previous Business Day if no

sufficient prices of the Futures and Option Contracts ~~with~~ the same ~~expiry~~ prior to the final fifteen-minute period were available to determine the volatility of such option series; and

- other information provided by the Market Makers in the relevant Market if no volatility or skewness of the Options Contracts ~~with~~ the same ~~expiry~~ on the previous Business Day was available.
- (d) The Clearing House will adjust, where appropriate, the Closing Quotation of an Option Contract calculated under paragraph (a), (b) or (c) according to the following and rounded to the nearest tick:
- (4) starting from the at-the-money to the most in-the-money option series of the same underlying instrument, ~~month-expiry~~ and call/put type, if the Closing Quotation is smaller than or equal to the Closing Quotation of the preceding option series, it will be adjusted to a value not lower than the Closing Quotation of such preceding option series; and
  - (5) starting from the at-the-money to the most out-of-the-money option series of the same underlying instrument, ~~expiry~~ and call/put type, if the Closing Quotation is greater than or equal to the Closing Quotation of the preceding option series, it will be adjusted to a value not higher than the Closing Quotation of such preceding option series.

## **Chapter 5                      Capital-Based Position Limits**

### **5.2      Extension of Position Limits**

Based on the gross and net margin liabilities calculated by the Clearing House at the end of the T Session of each Business Day, if the gross and/or net position limit of an HKCC Participant are/is exceeded, the HKCC Participant must take remedial action by increasing its Liquid Capital. The remedial action must be taken

- within 10 Business Days if the HKCC Participant pays or delivers to the Clearing House an additional margin equivalent to 25% of whichever is the higher of:
  - its gross margin liability in excess of its gross position limit; or
  - its net margin liability in excess of its net position limit; or
- immediately in any other case.

~~When~~~~Upon the expiry of~~ the applicable time period ~~comes to an end~~, the HKCC Participant must, or failing which the Clearing House may, close out or transfer to any other HKCC Participant or HKCC Participants all positions in excess of the position limit.