

Operational Clearing Procedures for Options Trading Exchange Participants

**Table of Contents**

**III. CLEARING SERVICES**

- 7. COLLATERAL
  - 7.1 *Bank Guarantees*
    - 7.1.1 Use of Bank Guarantees
    - 7.1.2 Repealed
  - 7.2 *Securities Collateral*
    - 7.2.1 Deposit of Securities Collateral
    - 7.2.2 Withdrawal of Securities Collateral
    - 7.2.3 Revaluation of Securities Collateral
    - 7.2.4 Securities Collateral Coverage Assignment
    - 7.2.5 Securities Collateral De-cover
  - 7.3 *CCASS and CCMS Fees*
  - 7.4 *Exchange Fund Bills/Notes*
    - 7.4.1 Use of EFBN
    - 7.4.2 Redelivery of EFBN
    - 7.4.3 Interest Payment of EFBN
    - 7.4.4 Maturity Redemption of EFBN
    - 7.4.5 Revaluation of EFBN

**IV. DUTIES AND OBLIGATIONS OF SEOCH PARTICIPANTS**

- 8. SETTLEMENT AND DELIVERY IN RESPECT OF STOCK TRANSACTIONS
  - 8.1 *Overview*
    - 8.1.1 Repealed
    - 8.1.2 Repealed
    - 8.1.3 Repealed
  - 8.2 *Determination of Trade Day for Exercised Options Trades*
  - 8.3 *Timing for Settlement of Exercised Options Trades*
    - 8.3.1 Repealed
    - 8.3.2 Repealed
      - 8.3.2.1 Repealed
      - 8.3.2.2 Repealed
  - 8.4 *Methods for Settlement of Stock Delivery Obligations*
    - 8.4.1 Repealed
    - 8.4.2 Repealed
  - 8.5 *Records of Exercised Options Trades and Pending Stock Positions*
  - 8.6 *Margin Settlement of Pending Stock Positions*
    - 8.6.1 Pending Stock Positions to be Settled via CCASS under the CNS System
      - 8.6.1.1 Marks, Margin and Concentration Collateral Settlement through HKSCC
      - 8.6.1.2 Marks, Margin and Concentration Collateral Settlement through SEOCH
      - 8.6.1.3 CCMS Collateral Account Designation for Marks, Margin and Concentration Collateral Collection
    - 8.6.1A Pending Stock Positions to be Settled via CCASS under the IT System
    - 8.6.2 Pending Stock Positions to be Settled by Specific Securities Collateral
  - 8.7 *Settlement via CCASS under the CNS System*
  - 8.8 *Settlement via CCASS under the IT System*
    - 8.8.1 Settlement where the SEOCH Participant is the Buyer under the IT System
    - 8.8.2 Settlement where the SEOCH Participant is the Seller under the IT System
      - 8.8.2.1 Settlement Process
      - 8.8.2.2 Late Stock Delivery by the SEOCH Participant under the IT System
      - 8.8.2.3 Partial Delivery by the SEOCH Participant under the IT System
  - 8.9 *Settlement by Specific Securities Collateral*
    - 8.9.1 Withdrawal of Specific Securities Collateral
    - 8.9.2 Repealed
    - 8.9.3 Payment of Settlement Amount
    - 8.9.4 Repealed

- 8.10 *Settlement of Odd Lots and Fractional Shares Resulting from Exercise of Adjusted Contracts after Capital Adjustment*
  - 8.10.1 Settlement of Odd Lots
  - 8.10.2 Settlement of Fractional Shares
- 8.11 *CCASS Fees Apply*
- 8.12 *Stamp Duty and Levies*
- 9. MARGIN REQUIREMENT
  - 9.1 *Marginable Position*
  - 9.2 *Portfolio Risk Margining System*
    - 9.2.1 Mark-to-Market Margin
    - 9.2.2 Margin Interval and Risk Margin
    - 9.2.3 Total Margin Requirement
  - 9.3 *Margin Treatment of SEOCH Participant Positions*
    - 9.3.1 Margin Treatment of Open Options Positions
      - 9.3.1.1 House Positions
      - 9.3.1.2 Client Positions
      - 9.3.1.3 Margin Treatment of Covered Options Positions
    - 9.3.1A Margin Treatment of Pending Stock Positions
      - 9.3.1A.1 Margin Treatment of Pending Stock Positions to be Settled via CCASS under the CNS System
      - 9.3.1A.2 Margin Treatment for Pending Stock Positions to be Settled via CCASS under the IT System
      - 9.3.1A.3 Margin Treatment for Pending Stock Positions to be Settled by Specific Securities Collateral
    - 9.3.2 Repealed
      - 9.3.2.1 Repealed
      - 9.3.2.2 Repealed
    - 9.3.3 Repealed
      - 9.3.3.1 Repealed
      - 9.3.3.2 Repealed
      - 9.3.3.3 Repealed
      - 9.3.3.4 Repealed
      - 9.3.3.5 Repealed
    - 9.3.4 No Margin Offset between House, Omnibus or Individual Client Accounts
  - 9.4 *Obtaining Reports & Margin Parameters*
  - 9.5 *Interest On Cash Delivered As Margin Collateral*
  - 9.6 *Collection of Margin Requirement*
  - 9.7 *Intra-Day Margin*
  - 9.8 *Special Block Trade Margin*
- 10. MONEY SETTLEMENT
  - 10.1 *Introduction*
    - 10.1.1 Repealed
    - 10.1.2 Direct Debit Mandate
    - 10.1.3 Change of Designated Bank or Settlement Bank
    - 10.1.4 Repealed
  - 10.2 *The Daily Cash Settlement Component*
    - 10.2.1 Premium Settlement
    - 10.2.2 Margin Settlement
    - 10.2.3 Fee Settlement
    - 10.2.4 Settlement Amount
      - 10.2.4.1 Repealed
      - 10.2.4.2 Settlement via CCASS under the CNS System
      - 10.2.4.3 Settlement via CCASS under the IT System
      - 10.2.4.4 Settlement by Specific Securities Collateral
    - 10.2.5 Repealed
  - 10.3 *The Cash Settlement Process*
    - 10.3.1 Daily Cash Settlement
    - 10.3.2 Cash Redelivery Requests by SEOCH Participants
  - 10.4 *Cash Delivery/Redelivery Procedures*
    - 10.4.1 Cash Redelivery Procedures by SEOCH Participants
      - 10.4.1.1 Settlement Currencies
      - 10.4.1.2 Approved Currencies other than Applicable Settlement Currencies
    - 10.4.2 Cash Delivery Procedures by SEOCH Participants
      - 10.4.2.1 Settlement Currencies
      - 10.4.2.2 Approved Currencies other than Applicable Settlement Currencies
    - 10.4.3 Currencies Revaluation and as Substitution for the Settlement Currency
      - 10.4.3.1 Revaluation of Approved Currencies
      - 10.4.3.2 Substitution for the Settlement Currency

- 10.5 The Intra-Day Cash Settlement Process*
- 10.5A The Special Block Trade Margin Settlement Process*
- 10.6 Cash Contribution to the Reserve Fund*

**11. RESERVE FUND**

- 11.1 Use of the Reserve Fund*
- 11.2 SEOCH Participants' Reserve Fund Contributions*
  - 11.2.1 Initial Contributions*
  - 11.2.2 Variable Contributions*
  - 11.2.3 Maintenance of the Reserve Fund*
- 11.3 Methods of Contribution*
  - 11.3.1 Contributions in Cash and Other Approved Form of Non-Cash Collateral*
- 11.4 Refund of Surplus Variable Contributions*
- 11.5 Repealed*
- 11.6 Limits on Individual SEOCH Participant Reserve Fund Contributions*
- 11.7 Repealed*
- 11.8 Interest on Variable Contributions*

**APPENDICES**

Appendix A1. On-Behalf Trade Adjustment Request Form	A-1
Appendix A2. On-Behalf Trade Give-up/Take-up Request Form	A-2
Appendix A3. On-Behalf Average Price Trade (APT) Request Form	A-3
Appendix A4. On-Behalf Internal Position Adjustment Request Form	A-4
Appendix A5. External Position Transfer Request Form	A-5
Appendix A6. Annulment of Position Netting Request Form	A-6
Appendix A7. On-Behalf Cover/Decover Request Form	A-7
Appendix A8. On-Behalf Exercise /Exercise Adjustment Request Form	A-8
Appendix A9. DCASS Account Maintenance Form	A-9
Appendix A10. Opening / Maintenance of Market Maker Account for Designated Trader Form	A-10
Appendix A11. Maintenance of OBEP Individual Client Account Form	A-11
Appendix B1. [Repealed]	
Appendix B2. [Repealed]	
Appendix B3. [Repealed]	
Appendix B4. [Repealed]	
Appendix B5. [Repealed]	
Appendix B6. [Repealed]	
Appendix B7. [Repealed]	
Appendix B8. [Repealed]	
Appendix B9. Application / Change Request for Liquid Capital Apportionment Form	B-9
Appendix B10. CCMS Collateral Account Designation Form for Marks, Margin and Concentration Collateral Collection by SEOCH	B-10
Appendix C1. [Repealed]	
Appendix C2. [Repealed]	
Appendix C3. [Repealed]	
Appendix C4. [Repealed]	
Appendix C5. Special Block Trade Margin Call Notice	C-5
Appendix D. Portfolio Risk Margining System of HKEx (PRIME)	D-1
Appendix E. Minimum Reserve Fund Contributions of SEOCH Participants	E-1
Appendix F. [Repealed]	
Appendix G. Fees and Costs Payable to SEOCH	G-1
Appendix H. List of Approved Currencies	H-1
Appendix I. Interest and Accommodation Charge Structure	I-1

## **1. INTRODUCTION**

### **1.5 Types of Accounts Maintained in DCASS and CCMS for SEOCH Participants**

#### **1.5.2 CCMS Accounts**

Transactions of a SEOCH Participant with SEOCH in respect of any delivery or redelivery of collateral, whether cash or non-cash, and settlement of its stock delivery obligation resulting from exercise or assignment of options contracts are collectively referred to as “collateral movement” and “stock settlement” transactions respectively for the purpose of this section.

## **1.6 Segregation of Accounts**

For the purpose of assisting SEOCH Participants in keeping separate records of options contracts transacted on behalf of their clients, SEOCH will:

- ii. regard the various types of collateral designated in the House CCMS Collateral Account independent of those designated in its Client CCMS Collateral Account when determining the following in respect of a SEOCH Participant:
  - (d) the value of SEOCH Collateral provided by that SEOCH Participant;
  - (e) whether SEOCH Collateral provided by the SEOCH Participant is adequate; and
  - (f) whether SEOCH Collateral provided by the SEOCH Participant should be redelivered to it.

## **2. SEOCH PARTICIPANT**

### **2.4.3 Resignation Procedure**

The following procedure will apply to the resignation of SEOCH Participantship:

- i. Within such period of time as specified by SEOCH, the resigning SEOCH Participant is required to submit a plan to SEOCH on how it intends to close out or transfer all options positions held in the accounts of NCPs for whom it clears as well as those of its house, client and other accounts maintained with SEOCH. The resigning SEOCH Participant is not allowed to create any open position which expires later than the date specified by SEOCH.
- ii. From the date the resignation request is received by SEOCH, the SEOCH Participant may be obliged to make further additional contributions to the Reserve Fund requested by SEOCH for an amount up to a limit determined by SEOCH in accordance with 11.6.
- iii. Each resignation request received by SEOCH will be submitted to the SEOCH Board for approval. If a resignation request is approved by the SEOCH Board, the SEOCH Board will also determine the effective date of termination of its SEOCH Participantship, and may determine that the approval be subject to the fulfilment of such conditions as it may consider appropriate.
- iv. SEOCH will notify the resigning SEOCH Participant and the GCP in writing of the SEOCH Board’s decision and, if the request has been accepted, confirm the effective date of the termination which may be subject to fulfilment of conditions set for the resigning SEOCH Participant as mentioned in paragraph iii above.
- v. The resigning SEOCH Participant shall, until the effective date of termination of its SEOCH Participantship, remain bound by all the provisions of the Clearing Rules.
- vi. All SEOCH Participants will be notified by circular.

- vii. Upon payment of all fees accrued from options positions and the re-calculated Variable Contribution and any Replenishment Contribution up to the Business Day before the effective date of termination of its SEOCH Participantship, the resigning SEOCH Participant will have no further obligations to SEOCH. Two months after the effective date of termination, its Reserve Fund Contributions will be refunded in accordance with Clearing Rule 722.

## **2.5 Revocation of Resignation Notice**

If a resigning SEOCH Participant wishes to withdraw its resignation notice, it can do so only before the effective date of the termination and subject to the consent of SEOCH. The SEOCH Participant is required to submit a written request to SEOCH giving the reasons for the revocation.

SEOCH will inform the resigning SEOCH Participant of the amount and the payment date of any additional Reserve Fund Requirement that is demanded or other conditions that it must fulfil before it could revoke the resignation notice and resume the same participantship status before its notice of resignation.

## **2.6 Change of Clearing Relationship**

If there is a change to an existing clearing relationship between an NCP and a GCP, they are required to sign a termination agreement to end the relationship. The NCP shall, if applicable appoint a replacing GCP to clear its options trades.

Besides the NCP, the newly appointed GCP and the terminated GCP are also required to notify SEOCH in writing. If the change request is approved by SEOCH, SEOCH will confirm the effective date for change of clearing relationship in writing.

The NCP's trades done prior to the effective date will be cleared by the existing GCP and trades done on or after the effective date will be cleared by the new GCP. SEOCH will transfer all its existing positions with the terminated GCP to the corresponding accounts with the new GCP on the effective date.

If the change in clearing relationship leads to a change in the GCP's Reserve Fund Contributions, SEOCH will process the addition/reduction in Initial Contribution within such period of time as specified by the SEOCH Board.

## **2.7 Suspension of Participantship**

SEOCH may suspend the SEOCH Participantship of a Defaulting SEOCH Participant on such terms and for such period as SEOCH may think fit. SEOCH may also suspend the SEOCH Participantship of any SEOCH Participant which is in violation of the Clearing Rules.

## **7. COLLATERAL**

SEOCH may accept cash and non-cash assets as SEOCH Collateral for margin purposes and for making Variable Contributions to the Reserve Fund in such form and manner, and in the case of non-cash assets and cash denominated in a currency other than the Settlement Currency, up to such limit as may be approved by the SEOCH Board from time to time. Where the Settlement Currency of a Contract is not the same as the Currency of the Contract, the margin payable on such Contract will be converted by SEOCH from the Currency of the Contract into the Settlement Currency at the exchange rate determined by SEOCH as soon as practicable after the margin arose from such source and on such basis as it shall consider appropriate. Unless otherwise determined by the SEOCH Board, the amount of cash in the Settlement Currency covering the margin requirement for each CCMS Collateral Account of a SEOCH Participant shall not fall below the minimum level prescribed by the SEOCH Board. Normally, a SEOCH Participant's margin requirements will first be satisfied by cash in the Settlement Currency, then cash in any other currency from time to time approved by the SEOCH Board (see Appendix H for the current list of approved currencies) and then by any non-cash

collateral credited to the SEOCH Participant's CCMS Collateral Account, or any other order of application as prescribed by the SEOCH Board from time to time. In relation to Variable Contributions to the Reserve Fund where cash and non-cash collateral may be used, the order of application of such collaterals may be in any order as prescribed by the SEOCH Board from time to time.

SEOCH may accept the transfer of non-cash collateral directly from a SEOCH Participant's clients provided that details of such transfer are provided by the SEOCH Participant in advance. SEOCH will update the SEOCH Participant's CCMS Collateral Account upon the transfer of such non-cash collateral.

This chapter sets out the procedures for handling non-cash collateral. For the processing of cash collateral, refer to Chapter 10 - Money Settlement.

Collateral management, including cash and non-cash collateral of SEOCH Participants, is handled by CCMS. For a detailed description of the collateral management functions in CCMS, please refer to the *CCMS Terminal User Guide*.

Any SEOCH Participant using non-cash collateral in settlement of the SEOCH Participant's margin requirement will be subject to an accommodation charge at a rate or rates as prescribed by the SEOCH Board from time to time on the amount of margin requirement which is settled by non-cash collateral (see Appendix I).

Each SEOCH Participant shall be liable for all disbursements and expenses that may be incurred by SEOCH in respect of or incidental to its acceptance of non-cash collateral from the SEOCH Participant, including its redelivery or delivery of non-cash collateral and related sums to the SEOCH Participant.

## **7.1 Bank Guarantees**

SEOCH will accept bank guarantees for the purpose of meeting in part the margin requirements of a SEOCH Participant. The SEOCH Board shall have the absolute right to determine the maximum amount of a SEOCH Participant's margin requirements that may be satisfied in the form of bank guarantees.

SEOCH will also accept bank guarantees for the purpose of meeting in part or in whole the Variable Contribution of a SEOCH Participant to the Reserve Fund. The SEOCH Board shall have the absolute right to determine the maximum amount of a SEOCH Participant's Variable Contribution that may be satisfied in the form of bank guarantees.

Bank guarantees refer to guarantees issued by registered licensed banks in Hong Kong as the SEOCH Board may approve from time to time and the guarantors guarantee irrevocable and unconditional payment upon demand by SEOCH. The guarantee must be in the standard form prescribed by the SEOCH Board. A standard guarantee form is available from SEOCH upon request.

SEOCH reserves the right to add to or reduce the number of banks so approved at any time and determine the maximum amount of guarantees that may be accepted from a bank. Notwithstanding the foregoing, SEOCH will not accept any guarantee issued by any bank which holds or controls (whether directly or indirectly) 20 percent or more of the issued share capital or voting power of a SEOCH Participant or which, in SEOCH's absolute opinion, is closely associated with or related to the SEOCH Participant.

### **7.1.1 Use of Bank Guarantees**

The following procedures will apply to the use of bank guarantees:

- i. A SEOCH Participant wishing to meet its margin or Variable Contribution requirements by means of a bank guarantee must notify and seek prior approval from SEOCH in writing or by

other means acceptable to SEOCH. Such notification must include the specific purpose for which the bank guarantee is being used.

- ii. SEOCH will notify the SEOCH Participant whether the use of a bank guarantee is acceptable. If acceptable, the SEOCH Participant must arrange for the issuance of the guarantee within such period of time as may be specified by SEOCH at the time when the SEOCH Participant is notified (or if no such period is specified, within two weeks) and the original guarantee documents must be delivered to SEOCH.
- iii. Upon receipt of the guarantee documents, SEOCH will confirm the validity of the guarantee with the issuing bank.
- iv. Upon confirmation of the validity of the guarantee presented, SEOCH will update the SEOCH Participant's CCMS Collateral Account. Any guarantee accepted shall remain valid until it is revoked in accordance with its terms.

### **7.1.2 Repealed**

## **7.2 Securities Collateral**

A SEOCH Participant which intends to lodge securities for collateral purposes must execute a valid "Deed of Charge" which governs SEOCH's fixed charge on such securities collateral and such other documents as may be required by SEOCH. For the avoidance of doubt, any EFBN provided by a SEOCH Participant to SEOCH shall be transferred outright to SEOCH and will not form the subject matter of such "Deed of Charge". The standard form Deed of Charge is available from SEOCH upon request. SEOCH will not accept a SEOCH Participant's securities collateral if such documents are not in place. Securities collateral credited to a SEOCH Participant's CCMS Collateral Account will not be allowed to be used except as provided for under the Clearing Rules or these Operational Clearing Procedures, or transferred or withdrawn by the SEOCH Participant unless with the express permission of SEOCH.

## **7.4 Exchange Fund Bills/Notes**

Exchange Fund Bills/Notes (EFBN) refers to the debt instruments issued for the account of the Exchange Fund of Hong Kong. SEOCH will accept these EFBN as General Collateral for the purpose of meeting in part the margin obligations of a SEOCH Participant in respect of its house or client positions. The SEOCH Board shall have the absolute right to determine the maximum amount of a SEOCH Participant's margin obligations that may be satisfied in the form of EFBN.

SEOCH will also accept EFBN for the purpose of meeting in part or in whole the Variable Contribution of a SEOCH Participant to the Reserve Fund. The SEOCH Board shall have the absolute right to determine the maximum amount of a SEOCH Participant's Variable Contribution that may be satisfied in the form of EFBN.

SEOCH is a Recognised Dealer (RD) appointed by the Hong Kong Monetary Authority (HKMA) under the Exchange Fund Bill/Note programmes and all transfers of EFBN must be effected as book entries via the Exchange Fund Bills and Notes Clearing and Settlement System (EFCS) between the account of SEOCH and that of the SEOCH Participant or its client. In case the SEOCH Participant or its client is not a RD, the SEOCH Participant must give instructions to the RD with whom the EFBN are held to effect the transfer on its behalf.

### **7.4.1 Use of EFBN**

Any SEOCH Participant wishing to use EFBN to meet its margin or Variable Contribution requirements shall, in writing or by other means acceptable to SEOCH, notify SEOCH of its intention before 11:00 a.m. Such notification must include the specific purpose for which EFBN are being transferred. At the same time, the SEOCH Participant shall instruct its RD to transfer EFBN

on a Free of Payment (“FOP”) basis to SEOCH’s account with HKMA. A SEOCH Participant may also meet its margin requirement in respect of client positions through the transfer of EFBN directly from the SEOCH Participant’s clients provided that the SEOCH Participant notifies SEOCH of the details of such transfer in advance. The SEOCH Participant shall instruct its clients or their RDs to transfer EFBN on an FOP basis to SEOCH’s account with HKMA and any such EFBN so transferred shall be considered to be delivered by the SEOCH Participant. In the event that any such transfer fails to be made with the result that the SEOCH Participant fails to meet any margin requirement, the SEOCH Participant shall remain liable to SEOCH in respect of such requirement and will be placed in default under the Clearing Rules.

SEOCH will update the SEOCH Participant’s CCMS Collateral Account and accept EFBN as cover for margin or Variable Contribution requirements for the quantity of EFBN transferred only upon confirmation of receipt of the relevant EFBN in the account that SEOCH maintained in the EFCS. To receive same-day credit for EFBN, the SEOCH Participant must transfer EFBN to SEOCH’s account with HKMA by such transfer cutoff time as may from time to time be specified by HKMA.

#### **7.4.2 Redelivery of EFBN**

Any SEOCH Participant that wishes to request for the redelivery of EFBN collateral should check its current balance of EFBN via a CCMS terminal. A redelivery request will be accepted only if and to the extent that there is excess collateral in its CCMS Collateral Account to satisfy the request. SEOCH Participants shall provide replacement collateral before submitting any EFBN redelivery requests if there is insufficient collateral in their CCMS Collateral Accounts.

A SEOCH Participant shall, in writing or by other means acceptable to SEOCH, notify SEOCH of an EFBN redelivery request before 11:00 a.m. and, if the conditions in the preceding paragraph are satisfied, such EFBN will be debited from the SEOCH Participant’s CCMS Collateral Account and no longer be used to settle the SEOCH Participant’s margin requirement and/or to satisfy the requirement of the Variable Contribution of that SEOCH Participant as determined under the procedure described in 11.2.2. SEOCH, upon allowing such redelivery request, will initiate instructions to HKMA to transfer EFBN on an FOP basis to the account of the SEOCH Participant, or on the express instructions of the SEOCH Participant, to such other account as it may specify provided that the SEOCH Participant provides confirmation to SEOCH that the holder of such account is a client of the SEOCH Participant. The SEOCH Participant should instruct its or, as the case may be, its client’s RD to settle the transfer on that day. Any EFBN so transferred by SEOCH to an account specified by the SEOCH Participant shall be deemed to have been transferred to the SEOCH Participant insofar as the satisfaction of any liability of SEOCH towards the SEOCH Participant is concerned.

#### **7.4.3 Interest Payment of EFBN**

Where interest is paid to SEOCH in relation to EFBN which are the subject of cover for margin or Variable Contribution requirement provided by a SEOCH Participant, SEOCH will pay to the SEOCH Participant by crediting the relevant CCMS Collateral Account of the SEOCH Participant on the same Business Day, a sum equivalent to the amount of such interest that the SEOCH Participant would have been entitled to receive had the EFBN not been provided to SEOCH and had been retained by the SEOCH Participant on the interest payment date, less any withholding tax that may be required to be deducted pursuant to any applicable tax laws and regulations.

#### **7.4.4 Maturity Redemption of EFBN**

Where redemption money is paid to SEOCH upon maturity of any EFBN which is the subject of cover for margin or Variable Contribution requirement provided by a SEOCH Participant, unless otherwise notified to the contrary by SEOCH, SEOCH will pay to the SEOCH Participant, by crediting the relevant CCMS Collateral Account of the SEOCH Participant on the Business Day following maturity of the EFBN, a sum equivalent to the amount of such redemption money that the SEOCH Participant would have been entitled to receive had the EFBN not been provided to SEOCH and had been retained by the SEOCH Participant on the redemption money payment date, less any withholding tax that may be required to be deducted pursuant to any applicable tax laws and

regulations. SEOCH will, on the same day, debit the matured EFBN from the CCMS Collateral Account of the SEOCH Participant.

#### **7.4.5 Revaluation of EFBN**

EFBN recorded in the CCMS Collateral Account will be marked to market based on the closing value or the market value of the EFBN at a specified time published by the HKMA at the close of each Business Day. "Haircuts" may be applied which discount the value of the EFBN collateral for the purpose of margin call and Variable Contribution calculation. The haircut rates will be determined by SEOCH at its absolute discretion.

## **8. SETTLEMENT AND DELIVERY IN RESPECT OF STOCK TRANSACTIONS**

### **8.4 Methods for Settlement of Stock Delivery Obligations**

Under normal circumstances, SEOCH would not use securities collateral provided by a SEOCH Participant to settle its delivery obligations. However, for Specific Securities Collateral covering short call positions, whether recorded in the SEOCH Participant's House, Market Maker or Individual or Omnibus Client Account, SEOCH will deem such Specific Securities Collateral to be used for settlement of the SEOCH Participant's delivery obligations arising from assignment of the short calls.

Except as aforementioned, stock delivery obligations arising from exercise and assignment of options positions are settled via CCASS under the Continuous Net Settlement (CNS) System in the same manner as other transactions in respect of an Eligible Security effected on exercise day in the underlying cash market of the Exchange. However, SEOCH may, at its discretion, isolate certain exercised options trades relating to one or more SEOCH Participants from settlement under the CNS System. Such isolated exercised options trades will be settled under the Isolated Trade (IT) System.

Procedures regarding settlement under the CNS System, the IT System or by Specific Securities Collateral are described in paragraphs 8.7, 8.8 and 8.9 respectively.

### **8.5 Records of Exercised Options Trades and Pending Stock Positions**

Particulars of each exercised options trade and resulting pending stock positions are detailed in the DCASS report EXERCISE AND ASSIGN SUMMARY after the AB process on the exercise day (i.e., T). SEOCH Participants can also enquire about exercise and assignment information via the Exercise History Window and Clearing Information Window of DCASS.

After the AB process on the exercise day (i.e., T), particulars of the resulting pending stock positions will be transferred to CCASS for settlement on T+2. An entry in the Final Clearing Statement (FCS) issued by HKSCC to the SEOCH Participant or the CCASS GCP, where applicable, on T+1 is confirmation of acceptance by HKSCC that an exercised options trade will be settled under the CNS or IT System. SEOCH Participants can also enquire about the particulars of exercised options trades to be settled by Specific Securities Collateral provided to SEOCH using the Clearing Information Window of DCASS.

### **8.6 Margin Settlement of Pending Stock Positions**

#### **8.6.1 Pending Stock Positions to be Settled via CCASS under the CNS System**

##### **8.6.1.1 Marks, Margin and Concentration Collateral Settlement through HKSCC**

For SEOCH's margin computation purposes only, pending stock positions to be settled via CCASS under the CNS System will be deemed as settled once such positions are reported in the Provisional Clearing Statement (PCS) on T as positions to be settled under the CNS System. Such pending stock positions will be subject to Marks, Margin and Concentration Collateral requirements of HKSCC pursuant to the CCASS Rules and the SEOCH Participant or the CCASS GCP, where applicable,

will be responsible for the settlement of such Marks, Margin and Concentration Collateral in its capacity as a CCASS Clearing Participant. Therefore no margin will be required by SEOCH on such pending stock positions.

#### **8.6.1.2 Marks, Margin and Concentration Collateral Settlement through SEOCH**

Notwithstanding the above, a SEOCH Participant which will be settling its delivery obligations in CCASS itself (in its capacity as a CCASS Clearing Participant) may arrange with SEOCH to collect and pay, through a designated House CCMS Collateral Account of the SEOCH Participant in SEOCH, Marks, Margin and Concentration Collateral demanded by HKSCC on T in respect of pending stock positions to be settled via CCASS under the CNS System. In this case, to the extent any excess cash collateral balance standing to the credit of such designated House CCMS Collateral Account is not sufficient to settle the Marks, Margin and Concentration Collateral requirement of HKSCC, a demand will be made on T through SEOCH's money settlement process according to 9.3.1A.

On T+1, SEOCH will, on behalf of the SEOCH Participant, effect a transfer from the SEOCH Participant's designated House CCMS Collateral Account to HKSCC's CCMS Collateral Account of an amount which is required to settle the obligation of the SEOCH Participant (in its capacity as a CCASS Clearing Participant) to pay Marks, Margin and Concentration Collateral demanded by HKSCC in respect of such pending stock positions. The amount to be transferred would comprise excess cash collateral balance that would have been available for withdrawal by the SEOCH Participant had no arrangement been made with SEOCH for it to pay Marks, Margin and Concentration Collateral on its behalf and any amount demanded by SEOCH for this purpose as mentioned above. No transfer will be made if there are insufficient funds in the designated House CCMS Collateral Account of the SEOCH Participant for this purpose or if the pending stock positions are not accepted by HKSCC for settlement under the CNS System. Upon such transfer being effected, any obligation of SEOCH to release to the SEOCH Participant any amount so transferred shall be discharged.

For the avoidance of doubt, SEOCH will not arrange to collect or pay Marks, Margin and Concentration Collateral with any SEOCH Participant which settles its delivery obligations through a CCASS GCP.

#### **8.6.1.3 CCMS Collateral Account Designation for Marks, Margin and Concentration Collateral Collection**

Where a SEOCH Participant opts for SEOCH to collect and pay Marks, Margin and Concentration Collateral of pending stock positions to be settled in CCASS under the CNS System through its designated House CCMS Collateral Account in SEOCH, such SEOCH Participant shall submit to SEOCH the **CCMS Collateral Account Designation Form for Marks, Margin and Concentration Collateral Collection by SEOCH** [Appendix B10] by such time as may be specified by SEOCH from time to time. Any completed designation form received by SEOCH before the specified time on a Business Day shall become effective on the next Business Day. Notwithstanding the foregoing, SEOCH reserves the right to accept or reject any submission made under a CCMS Collateral Account Designation Form for Marks, Margin and Concentration Collateral Collection at its sole discretion.

#### **8.6.1A Pending Stock Positions to be Settled via CCASS under the IT System**

Pending stock positions to be settled under the IT System will be margined by SEOCH until full settlement by delivery of the underlying securities. SEOCH will inform SEOCH Participants about the margin requirement, if any, and such margin would be settled via the money settlement process of SEOCH.

#### **8.6.2 Pending Stock Positions to be Settled by Specific Securities Collateral**

For covered pending stock positions of a SEOCH Participant, SEOCH would normally deem those Specific Securities Collateral covering such stock positions to be used for the settlement of the SEOCH Participant's delivery obligations and hence no margin is required. SEOCH Participants should note that, since SEOCH has no information as to the allocation of exercised options trades amongst clients of a SEOCH Participant, the covered securities collateral allocation algorithm will differ for the various accounts in DCASS.

For the House, Market Maker and Individual Client Accounts, DCASS assumes pending short stock positions resulting from assignment of short call positions have higher priority, i.e., any Specific Securities Collateral will first be allocated to cover pending short stock positions which have arisen from the assignment of short calls and the balance, if any, allocated to cover open short call options positions.

For the Omnibus Client Account in DCASS, any Specific Securities Collateral will first be allocated to cover open or expiring short call options positions and any balance left will then be allocated to cover short pending stock positions resulting from assignment of the short calls. If the quantity of Specific Securities Collateral is not sufficient to cover the SEOCH Participant's open or expiring short call options positions, the short pending stock positions resulting from assignment would become naked, and the Specific Securities Collateral will not be used for the settlement of its delivery obligations.

## **8.7 Settlement via CCASS under the CNS System**

Exercised options trades to be settled under the CNS System are regarded as if they were trades in the cash market which had been effected on the same day as the day of exercise (i.e. T), for the purpose of the CCASS Rules.

SEOCH will send to HKSCC all the particulars of each such exercised options trade, on a trade by trade basis (i.e. no netting and with SEOCH as the counter party to each such trade) upon completion of the AB process on T. On T+1, if the SEOCH Participant has arranged for SEOCH to collect and pay Marks, Margin and Concentration Collateral in respect of pending stock positions arising from the exercised options trades from its designated House CCMS Collateral Account, SEOCH will transfer to HKSCC an amount which is required to settle the Marks, Margin and Concentration Collateral demanded by HKSCC in respect of these pending stock positions pursuant to the CCASS Rules, such that these exercised options trades can be settled under the CNS System.

Upon confirmation of acceptance for settlement under the CNS System as recorded in the FCS issued by HKSCC on T+1, all exercised options trades will be netted with all other trades executed in the cash market on T by the SEOCH Participant or the CCASS GCP, where applicable, and settled under the CNS System in accordance with the CCASS Rules. SEOCH will deem such exercised options trades settled after acceptance of such trades are confirmed by HKSCC for settlement under the CNS System on T+1.

## **8.8 Settlement via CCASS under the IT System**

SEOCH may exercise its discretion and determine that certain exercised options trades should be settled under the IT System. Under such circumstances, the affected SEOCH Participant will be notified of the decision as soon as practicable. In any case, an entry in the FCS issued by HKSCC indicating the exercised options trades are to be settled under the IT System will serve as the final confirmation of such a decision. Upon confirmation of any exercised options trades to be settled under the IT System, the relevant SEOCH Participants with stock delivery obligations must change the payment method of such exercised options trades from DVP to FOP basis as soon as possible. For any SEOCH Participant which settles its delivery obligations via a CCASS GCP, it must have a pre-established arrangement with its CCASS GCP to facilitate such change in a timely manner.

Stock settlement of these exercised options trades under the IT System will be handled via CCASS, whilst money settlement of the related Settlement Amount will be effected through the SEOCH

money settlement process. Settlement procedures where the SEOCH Participant is the Buyer are described under 8.8.1 and where the SEOCH Participant is the Seller, under 8.8.2 below.

### **8.8.1 Settlement where the SEOCH Participant is the Buyer under the IT System**

SEOCH will collect the related Settlement Amount from a SEOCH Participant by debiting the required cash amount from that SEOCH Participant's cash balance recorded in its CCMS Collateral Account on T+1. If the balance as shown in that SEOCH Participant's CCMS Collateral Account is insufficient, any deficit will be collected by SEOCH through the SEOCH Participant's bank account maintained with the Designated Bank or Settlement Bank on T+2 not later than 9:15 a.m.

Upon confirmation of full settlement of the Settlement Amount, SEOCH will use its best endeavour to deliver the underlying securities to the Stock Account in CCASS maintained by that SEOCH Participant or the CCASS GCP, where applicable, during one of the four batch settlement runs on T+2 or thereafter as soon as practicable.

### **8.8.2 Settlement where the SEOCH Participant is the Seller under the IT System**

#### **8.8.2.1 Settlement Process**

As soon as being notified of any exercised options trades to be settled under the IT System, the affected SEOCH Participant must change or have arrangement in place to change the payment method of such exercised options trades to an FOP basis via a CCASS terminal before the first batch run on T+2 and it may settle the stock delivery obligations by the use of the DI functions of CCASS or during any batch run on T+2. Upon receipt of the underlying securities in full settlement of the pending stock positions, SEOCH will credit the related Settlement Amount to the SEOCH Participant's CCMS Collateral Account on T+2 for same day value.

If the SEOCH Participant or the CCASS GCP, where applicable, can deliver the required underlying securities by DI before 11:00 a.m. and has submitted a cash withdrawal request before the cash withdrawal request cut off time (i.e. 11:00 a.m.), SEOCH will, upon confirmation of stock settlement, process the cash withdrawal for same day value.

#### **8.8.2.2 Late Stock Delivery by the SEOCH Participant under the IT System**

If the SEOCH Participant or the CCASS GCP, where applicable, fails to deliver stock to SEOCH on T+2, SEOCH will immediately initiate any necessary actions against the SEOCH Participant or the CCASS GCP, where applicable, which include but are not limited to requesting the late-delivering SEOCH Participant to buy in, requesting other Exchange Participants to perform the buy in on behalf of the late-delivering SEOCH Participant and/or the taking of disciplinary actions pursuant to the Clearing Rules. Any costs associated with the buy-in will be borne by the late-delivering SEOCH Participant.

If there are entitlements attached to the overdue stock positions which cannot be settled prior to the book-close day of the relevant event which gives rise to the entitlement, SEOCH will claim the entitlement back directly from the late delivering SEOCH Participant. Any costs or expenses incurred by SEOCH as a result of recovering the entitlement will be charged to the late delivering SEOCH Participant. The procedures below describe the processing of entitlements relating to late deliveries:

#### **8.8.2.3 Partial Delivery by the SEOCH Participant under the IT System**

Normally SEOCH will not accept partial delivery. In cases where SEOCH determines at its absolute discretion to accept partial delivery, the entire pending stock position will be regarded as unsettled and will hence be margined accordingly until stock delivery obligations relating to that pending stock position are settled in full. The related Settlement Amount will be credited to that SEOCH Participant's CCMS Collateral Account maintained with SEOCH only upon receipt of all the underlying securities in full settlement of the pending stock position.

## **8.9 Settlement by Specific Securities Collateral**

### **8.9.1 Withdrawal of Specific Securities Collateral**

All covered pending stock positions of a SEOCH Participant are deemed to be settled by Specific Securities Collateral already provided to SEOCH. The relevant underlying stock quantity will be automatically transferred from the Specific Securities Collateral balance of the SEOCH Participant's CCMS Collateral Account (maintained under these Procedures and the Clearing Rules) to:

- i. the SEOCH Participant's CCMS Collateral Account maintained with HKSCC; or
- ii. the CCASS GCP's CCMS Collateral Account maintained with HKSCC if the SEOCH Participant settles its delivery obligation through a CCASS GCP

as Specific Securities Collateral. SEOCH Participants should note that whether such collateral will be used for settlement of the relevant pending stock positions is subject to the netting result of the trades (including the trades of the cash market) to be settled under the CNS System on T+2.

Specific Securities Collateral covering expiring short call positions which have not been assigned will be automatically de-covered after the AB process on the expiry day. If a SEOCH Participant wishes to use such securities collateral for settlement of its delivery obligations, it could withdraw such securities collateral in accordance with the procedures detailed under 7.2.2.

### **8.9.3 Payment of Settlement Amount**

The Settlement Amount in respect of the quantity of pending stock positions settled by Specific Securities Collateral will be effected through CCASS on T+2.

### **8.9.4 Repealed**

## **9. MARGIN REQUIREMENT**

### **9.1 Marginable Position**

SEOCH requires margin for open option positions and pending stock positions. This is calculated and collected, where necessary, on a daily basis using routine procedures which are carried out overnight.

SEOCH may also collect margin at other times, even during trading on a Business Day, as it sees necessary (see Intra-day Margin, below).

### **9.2 Portfolio Risk Margining System**

#### **9.2.1 Mark-to-Market Margin**

Each day, after the close of trading, SEOCH marks the marginable positions to market with the fixing price of each option series determined by SEOCH. The resulting amount is called the Mark-to-Market Margin, which will be a credit for a long option position and a debit for a short option position.

- iii. If neither a trade nor a pair of bid and offer prices was available during the final fifteen-minute period, or if SEOCH determines according to paragraph ii that the procedures laid down in this paragraph iii should be followed, the fixing price of an option series shall be calculated by

SEOCH using a model as prescribed by SEOCH with the volatility determined with reference to the following:

- (c) the volatility and skewness of the option series of the same expiry month on the previous Business Day if no sufficient prices of the option series of the same expiry month prior to the final fifteen-minute period were available to determine the volatility of such option series; and
- (d) other information provided by the Market Makers if no volatility or skewness of the option series of the same expiry month on the previous Business Day was available.

## **9.2.2 Margin Interval and Risk Margin**

The sum of Mark-to-Market and Risk Margin is the Total Margin Requirement for the portfolio in a DCASS account. The actual amount of margin call demanded each day by SEOCH will be equal to this sum, minus the acceptable value of any collateral currently provided, including any premium income earned that day which, if necessary, will be retained to meet the margin requirement. The margin may be payable in cash or in an acceptable form of collateral.

If the result of the margin calculation is a credit for an account of the SEOCH Participant in DCASS, the Total Margin Requirement for that account is simply set to zero. The SEOCH Participant cannot realise the value of the margin credit. SEOCH never pays a SEOCH Participant for having a margin credit -- it can only redeliver excess collateral upon request.

## **9.3 Margin Treatment of SEOCH Participant Positions**

### **9.3.1 Margin Treatment of Open Option Positions**

#### **9.3.1.1 House Positions**

For open option positions maintained in any account in DCASS which is margined on a net basis, the netting works as follows:

- i. A long position in an option series will be netted against a short position in the same option series to create a net long or net short position for margining.
- ii. The Mark-to-Market Margin and Risk Margin of the option class is calculated separately based on the net long and net short positions of all series within the same option class. Where the option class produces a Mark-to-Market Margin credit, it can be used to offset the Risk Margin of that same option class. The resulting balance represents the Total Margin Requirement of that option class.
- iii. If the Total Margin Requirement is a credit for this option class, this credit can be used to offset the margin debits resulting from other option classes with the same Currency of the Contract.
- iv. If a margin credit results after offsetting the margin credits against the margin debits from the different option classes with the same Currency of the Contract, such margin credit can be used to further offset margin debits resulting from the margining of other option classes with a different Currency of the Contract. Before the offset, the margin credit will be converted into the Currency of the Contract in which the margin debit is denominated at such exchange rate as may be determined by SEOCH from such source and on such basis as it shall consider appropriate.

After netting under (i) to (iv) above, the Total Margin Requirements of all the option classes will be aggregated to form the Total Margin Requirement of the portfolio.

For margin calculation purpose, other than positions in the Market Maker Account of a designated trader, which will be margined separately, and other than positions in the Market Maker Account of an NCP of a SEOCH Participant, which will be aggregated with those in the relevant Individual Client Account of the SEOCH Participant maintained for such NCP as if they were positions in such account, positions in the SEOCH Participant's Market Maker Account will be aggregated with those in its House Account and margin will be calculated on a net basis. Open option positions comprised in the Daily Account and the Sink Account are margined on a gross basis according to the same algorithm as that adopted for the Omnibus Client Account described in 9.3.1.2.

For more details on net margining, please refer to Appendix D or the *PRiME Margining Guide*.

### **9.3.1.2 Client Positions**

Open option positions maintained in the Omnibus Client Account are margined on a gross basis. Open option positions maintained in an Individual Client Account or a Client Offset Claim Account are margined on a net basis.

Margin credits of long positions in the Omnibus Client Account cannot be used to offset the margin debits of any short positions in that account, whether the positions are of the same option series, within an option class or across option classes. For details of gross margining, please refer to Appendix D or the *PRiME Margining Guide*.

Open option positions comprised in an Individual Client Account are margined on a net basis according to the same algorithm as the House Account described in 9.3.1.1. However, any margin credit associated with an Individual Client Account will not be used to offset the margin debit of any other Individual Client Account or any other open option positions maintained in any other account of a SEOCH Participant.

Open option positions comprised in a Client Offset Claim Account are margined on a net basis. For more details on net margining, please refer to Appendix D or the *PRiME Margining Guide*. Only positions that are of an offset nature and that are transferred by a SEOCH Participant from its Omnibus Client Account to its Client Offset Claim Account on the following basis will be eligible for margin offset (please refer to 1.5.1):

- (a) only open short positions which the SEOCH Participant can identify as belonging to the same beneficial owner may be allocated; and
- (b) offset on short put and uncovered short call positions may be claimed on a one-to-one basis if their underlying securities are the same.

As no long positions shall be allocated to the Client Offset Claim Account, there will not be any margin credit for such account. Short positions allocated by a SEOCH Participant to a Client Offset Claim Account, same as those in other accounts of the SEOCH Participant in DCASS, may be assigned during the process of random assignment each day after the start of AB (please refer to 6.2). Such assigned positions will not be margined and cannot be utilised to offset the margin debits of the remaining short positions in the Client Offset Claim Account.

The margin requirement on open option positions maintained for clients of a SEOCH Participant is the aggregated total of margin requirements on all Individual Client Accounts plus the margin requirements in respect of all Omnibus Client Accounts and all Client Offset Claim Accounts.

### **9.3.1.3 Margin Treatment of Covered Options Positions**

#### **9.3.1A Margin Treatment of Pending Stock Positions**

All pending stock positions are margined independent of other options positions. The following paragraphs describe the margin treatment of pending stock positions settled under different mechanisms (as referenced in Chapter 8).

**9.3.1A.1 Margin Treatment of Pending Stock Positions to be Settled via CCASS under the CNS System**

No margin will be required by SEOCH on pending stock positions to be settled via CCASS under the CNS System, but such pending stock positions will be subject to the Marks, Margin and Concentration Collateral requirements of HKSCC pursuant to the CCASS Rules and the SEOCH Participant in its capacity as a CCASS Clearing Participant or the CCASS GCP, where applicable, will be responsible for the relevant Marks, Margin and Concentration Collateral demanded by HKSCC.

If a SEOCH Participant has made an arrangement with SEOCH to collect and pay Marks, Margin and Concentration Collateral to HKSCC through a designated SEOCH House CCMS Collateral Account in respect of pending stock positions to be settled via CCASS under the CNS System, SEOCH will collect from the SEOCH Participant on T such amount as may be required to satisfy the Marks, Margin and Concentration Collateral notified to SEOCH by HKSCC as the Marks, Margin and Concentration Collateral payable by the SEOCH Participant (in its capacity as a CCASS Clearing Participant ) in respect of these pending stock positions.

The Marks, Margin and Concentration Collateral payable by the SEOCH Participant would be determined by HKSCC pursuant to the CCASS Rules and would represent any additional Marks, Margin and Concentration Collateral requirement resulting from the netting of the relevant exercised options trades of the SEOCH Participant with the trades to be cleared by the SEOCH Participant under the CNS System (in its capacity as a CCASS Clearing Participant) in the cash market.

Such Marks, Margin and Concentration Collateral will be collected and paid in the relevant currency specified by the SEOCH Participant pursuant to the CCASS Rules. If the SEOCH Participant does not have a bank account in the relevant currency for money settlement under SEOCH and does not have sufficient amount of the relevant currency in the designated House CCMS Collateral Account of the SEOCH Participant, the Marks, Margin and Concentration Collateral to be collected will, after deducting any excess cash collateral balance in such relevant currency in the designated House CCMS Collateral Account of the SEOCH Participant, be settled in Hong Kong dollars in such equivalent amount as may be converted from the relevant currency based on such exchange rate as may be determined by SEOCH. Unless the amount of excess cash collateral standing to the credit of the designated House CCMS Collateral Account of the SEOCH Participant is sufficient to meet the amount of Marks, Margin and Concentration Collateral required by HKSCC, a demand for the shortfall will be made by SEOCH on T through the money settlement process of SEOCH.

On T+1, SEOCH will, on behalf of the SEOCH Participant, effect a transfer from the SEOCH Participant's designated House CCMS Collateral Account to HKSCC's CCMS Collateral Account an amount which is required to settle the obligations of the SEOCH Participant (in its capacity as a CCASS Clearing Participant) to pay Marks, Margin and Concentration Collateral demanded by HKSCC in respect of the pending stock positions. The amount to be transferred would comprise excess cash collateral balance that would have been available for withdrawal by the SEOCH Participant had no arrangement been made with SEOCH for it to pay Marks, Margin and Concentration Collateral on its behalf and any amount demanded by SEOCH for this purposes as mentioned above. No transfer will be made if there are insufficient funds in the designated House CCMS Collateral Account of the SEOCH Participant for this purpose or if the pending stock positions are not accepted by HKSCC for settlement under the CNS System. Upon such transfer being effected, any obligation of SEOCH to release to the SEOCH Participant any amount so transferred shall be discharged.

**9.3.1A.2 Margin Treatment for Pending Stock Positions to be Settled via CCASS under the IT System**

Pending stock positions of a SEOCH Participant to be settled under the IT System will be margined by SEOCH until the stock positions are fully settled by the SEOCH Participant. As the pending stock positions are no longer maintained in DCASS, the margin requirement on all pending stock positions to be settled under the IT System will be computed separately by SEOCH.

### **9.3.1A.3 Margin Treatment for Pending Stock Positions to be Settled by Specific Securities Collateral**

Delivery obligations arising from covered pending stock positions are deemed to be settled by Specific Securities Collateral already deposited with SEOCH. Such positions are not marginable as they are covered by the relevant securities collateral.

### **9.3.4 No Margin Offset between House, Omnibus or Individual Client Accounts**

Where there is a credit for the total margin in the House, Omnibus Client or Individual Client Account of a SEOCH Participant, the margin credit in that account will **not** be used to offset any margin debit of either of the other two accounts.

## **9.5 Interest On Cash Delivered As Margin Collateral**

Interest may be payable or levied on cash provided for margin requirements and other cash amounts provided at a rate prescribed by SEOCH from time to time (see Appendix I). The total amount of interest earned or levied up to and including the last day of the month will be posted to the SEOCH Participants' respective CCMS Collateral Accounts on the first Business Day of the following month.

## **9.6 Collection of Margin Requirement**

The daily margin requirement is settled not later than 9:15 a.m. the next Business Day in clear funds through the SEOCH money settlement process. However, due to the time required for DCASS day end processing, the margin amount required by SEOCH will only be known **after** normal banking hours. This in turn means that the SEOCH Participant must have a good estimate of the total cash requirement that SEOCH will demand before the close of the bank.

# **10. MONEY SETTLEMENT**

## **10.1 Introduction**

Unless otherwise specified by SEOCH, the money settlement process of SEOCH will be effected by cash in the Settlement Currency transferred between the bank accounts of SEOCH maintained with Settlement Banks and bank accounts of SEOCH Participants maintained with either Designated Banks or Settlement Banks. All such cash transfers, whether for amounts collected from or payable to a SEOCH Participant, are initiated by SEOCH issuing a Direct Debit Instruction ("DDI") to the Designated Bank or Settlement Bank (as the case may be); or a Direct Credit Instruction ("DCI") to the Settlement Bank.

### **10.1.2 Direct Debit Mandate**

In order to facilitate the money settlement process as described, every SEOCH Participant must execute the uniform Direct Debit Mandate with the Designated Bank or Settlement Bank (as the case may be) authorising the bank to release funds to SEOCH's account upon request. The Direct Debit Mandate will become effective only when the Designated Bank or Settlement Bank confirms its acceptance. Direct Debit Mandates are available from SEOCH, Designated Banks or Settlement Banks.

## **10.2 The Daily Cash Settlement Component**

The Daily Cash Settlement Component consists of up to four components namely Premium, margin, fees and if necessary, Settlement Amount which are all to be settled by cash in the Settlement

Currency unless otherwise specified by SEOCH, with the exception of margin which may also be settled by cash in an approved currency other than the Settlement Currency and non-cash collateral acceptable to SEOCH.

The total margin requirement in respect of either house or client positions of a SEOCH Participant may be covered by the SEOCH Participant's cash and non-cash collateral balance after haircut, if applicable, within its House or Client CCMS Collateral Account provided that the SEOCH Board shall have the absolute right to determine the minimum amount of a SEOCH Participant's margin requirements that must be covered by cash in the Settlement Currency or the maximum amount that may be covered by non-cash collateral or cash denominated in an approved currency other than the Settlement Currency. When the total margin requirement exceeds the total of acceptable cash and non-cash collateral balance after haircut, cash settlement is required for this excess margin requirement and will be collected via the appropriate bank account which the SEOCH Participant maintains with a Designated Bank or a Settlement Bank. The other components are Premium, fees and Settlement Amount and they will be collected via the SEOCH Participant's bank account with a Designated Bank or a Settlement Bank in the aforementioned manner when the sum of these components turns out to be in debit.

### **10.2.1 Premium Settlement**

The Premium is calculated as the net Premium balance due to or from the SEOCH Participant in respect of trades concluded on the preceding Business Day for house and clients' transactions separately. Where the Settlement Currency of a Contract is not the same as the Currency of the Contract, the Premium payable on such trade will be converted by SEOCH from the Currency of the Contract into the Settlement Currency at the exchange rate determined by SEOCH as soon as practicable after the Premium arose from such source and on such basis as it shall consider appropriate. Any exchange rate risk arising from the conversion will be borne by the SEOCH Participant. A credit arising from house positions will not be used to offset a debit arising from client positions, and vice versa.

### **10.2.2 Margin Settlement**

The amount of margin required will be calculated during batch processing. This will be compared with the cash and non-cash collateral value. If there is a deficit, it will be collected from the appropriate SEOCH Participant's account with the Designated Bank or a Settlement Bank by DDI. If no margin is required but the SEOCH Participant has cash or non-cash collateral in excess as shown in its CCMS Collateral Account, this excess cash or non-cash collateral will be returned upon request provided that the amount of margin that is covered by cash in the Settlement Currency will not fall below the minimum level prescribed by the SEOCH Board and the return of excess cash will not result in any other requirement regarding cover for the SEOCH Participant's margin requirements not being satisfied. Where the Settlement Currency of a Contract is not the same as the Currency of the Contract, the amount of margin required for such Contract will be converted by SEOCH from the Currency of the Contract into the Settlement Currency at the exchange rate determined by SEOCH as soon as practicable after the amount of margin required arose from such source and on such basis as it shall consider appropriate.

### **10.2.4 Settlement Amount**

The Settlement Amount will be the amount, exclusive of stamp duty, transaction levy and trading fee, required to settle pending stock transactions on T+2. Depending on how the pending stock position is settled, the payment of the Settlement Amount will be handled differently as described in the following paragraphs.

#### **10.2.4.1 Repealed**

#### **10.2.4.2 Settlement via CCASS under the CNS System**

Money settlement for pending stock positions arising from the exercise or assignment of options contracts settled through CCASS under the CNS System is effected through CCASS in the same way as any other CNS stock positions arising from stock transactions in the cash market.

If a SEOCH Participant has made an arrangement with SEOCH to collect and pay Marks, Margin and Concentration Collateral demanded by HKSCC in respect of pending stock positions to be settled through CCASS under the CNS System, the amount required, less any excess cash collateral standing to the credit of the House CCMS Collateral Account designated by the SEOCH Participant, will be collected by SEOCH by the money settlement process via the SEOCH Participant's account with the Designated Bank or Settlement Bank as part of the daily cash settlement described in 10.3.1 – Daily Cash Settlement.

#### **10.2.4.3 Settlement via CCASS under the IT System**

Money settlement for pending stock positions settled through CCASS under the IT System will be effected under SEOCH's money settlement process. The Settlement Amount due from a SEOCH Participant will be debited from its House or Client CCMS Collateral Account, as the case may be, and any deficit will be handled by the daily SEOCH money settlement process via the SEOCH Participant's account with the Designated Bank or Settlement Bank. The process is similar to that for daily cash settlement described in 10.3.1 – Daily Cash Settlement.

As to Settlement Amount due to a SEOCH Participant, SEOCH will credit the sum to the SEOCH Participant's House or Client CCMS Collateral Account, as the case may be. The SEOCH Participant can request the redelivery of excess cash balances according to the procedures described in 10.4. If the SEOCH Participant can fully settle the delivery before 11:00 a.m. and submit a redelivery request before the redelivery request cut off time i.e. 11:00 a.m., SEOCH will, upon confirmation of stock settlement, process the request for same day value.

#### **10.2.4.4 Settlement by Specific Securities Collateral**

Money settlement for pending stock positions to be settled by Specific Securities Collateral will be effected through CCASS in the same way as that of settlement via CCASS under the CNS System.

### **10.3.2 Cash Redelivery Requests by SEOCH Participants**

A SEOCH Participant can request for the redelivery of cash credited to its CCMS Collateral Account during the day provided that there is sufficient cash collateral balance available in its CCMS Collateral Account, its total collateral balance after such cash redelivery is not less than the SEOCH Participant's total margin requirement on its open positions immediately prior to such cash redelivery, the amount of cash in the Settlement Currency covering the margin requirement of the SEOCH Participant does not fall below the minimum level prescribed by the SEOCH Board and the redelivery will not result in any other requirement regarding cover for the SEOCH Participant's margin requirements or any other payment or settlement obligations of the SEOCH Participant under the Clearing Rules and these Procedures not being satisfied.

## **10.4 Cash Delivery/Redelivery Procedures**

### **10.4.1 Cash Redelivery Procedures by SEOCH Participants**

#### **10.4.1.1 Settlement Currencies**

If a SEOCH Participant wishes to request for the redelivery of any cash amount in a Settlement Currency, the following procedures apply:

- i. the SEOCH Participant should check if there is a surplus cash balance in the Settlement Currency in its CCMS Collateral Account available for redelivery;
- ii. the SEOCH Participant shall input a redelivery request via its CCMS terminal before the cash movement cut-off time, which is 11:00 a.m. each Business Day, for the amount to be redelivered and such amount will be deducted from the SEOCH Participant's CCMS Collateral Account. CCMS will restrict the redelivery request input after the prescribed cut-off time; and

- iii. if the redelivery request is accepted by SEOCH, SEOCH will issue a Direct Credit Instruction to pay the requested amount to the SEOCH Participant's account with the Designated Bank or Settlement Bank for same day value.

#### **10.4.1.2 Approved Currencies other than Applicable Settlement Currencies**

If a SEOCH Participant wishes to request for the redelivery of any cash amount in an approved currency referred to in Appendix H which is other than an applicable Settlement Currency referred to in 10.1, the following procedures apply:

- i. the SEOCH Participant should check if there is a surplus cash balance in the approved currency in its CCMS Collateral Account;
- ii. the SEOCH Participant may request the redelivery of any excess amount in the approved currencies provided to SEOCH by notifying SEOCH of its intention in writing or by other means acceptable to SEOCH by 11:00 a.m. on each Business Day, which should also be a Bank Business Day in the country or each of the countries where the SEOCH Participant's bank is located and where the approved currency other than applicable Settlement Currency is cleared; and
- iii. in the event that SEOCH, in its sole discretion, accepts the request to redeliver such excess amount, the request will be processed by SEOCH as soon as practicable. The redelivery of the requested excess amount will not be effected on the same day as the date of the request as set out in 10.4.1.2 (iii) (a) and (b) below, and interest may be paid or charged by SEOCH on the excess amount being redelivered at such positive or negative rate as it may determine from time to time in accordance with prevailing bank savings rates until the redelivery is effected. The value date for the redelivery of excess amount is as follows:

(a) Japanese Yen

The value date for the redelivery of the excess amount in Japanese Yen is the second Hong Kong Bank Business Day after the date on which the redelivery request is received by SEOCH. If that day is a bank holiday in Japan, then the value date shall be on the next Bank Business Day in both Japan and Hong Kong.

(b) Other Foreign Currencies

The value date for the redelivery of any excess amount in an approved currency other than the Japanese Yen is the next Hong Kong Bank Business Day after the date on which the redelivery request is received by SEOCH. If that day is a bank holiday in the country or countries where the SEOCH Participant's bank is located and where the approved currency is cleared, then the value date shall be on the next Bank Business Day in such country or countries and Hong Kong.

### **10.4.2 Cash Delivery Procedures by SEOCH Participants**

#### **10.4.2.1 Settlement Currencies**

If a SEOCH Participant wishes to deliver any cash amount in the Settlement Currency to SEOCH e.g. to meet future margin calls, the following procedures apply:

- i. the SEOCH Participant shall input a delivery request via its CCMS terminal before the cash movement cut-off time, which is 11:00 a.m. on each Business Day, for the amount to be delivered to SEOCH. CCMS will restrict the delivery request input after the prescribed cut-off time;
- ii. if the delivery request is accepted by SEOCH, SEOCH will collect the amount by issuing a Direct Debit Instruction to the SEOCH Participant's Designated Bank or Settlement Bank for

the delivery amount. The SEOCH Participant must ensure that there are sufficient good funds in its account with the Designated Bank or Settlement Bank for effecting such debit; and

- iii. upon the bank's confirmation that the Direct Debit Instruction has been effected successfully, SEOCH will update the cash balance for the amount delivered in the SEOCH Participant's CCMS Collateral Account for same day value.

#### **10.4.2.2 Approved Currencies other than Applicable Settlement Currencies**

If a SEOCH Participant wishes to deliver any cash amount in an approved currency referred to in Appendix H which is other than an applicable Settlement Currency referred to in 10.1 to SEOCH, the following procedures apply:

- i. the SEOCH Participant shall notify SEOCH of the delivery of the approved currency in writing or by other means acceptable to SEOCH by 11:00 a.m. each Business Day;
- ii. upon confirmation of the delivery from SEOCH's bank, SEOCH will update the cash balance for the amount delivered in the SEOCH Participant's CCMS Collateral Account;
- iii. the value date applicable to the transfer of an amount in the approved currency from a SEOCH Participant's account in one bank to SEOCH's account in another bank is normally the next Hong Kong Bank Business Day after the date on which the SEOCH Participant's bank receives the SEOCH Participant's instructions to effect such transfer. If that day is a bank holiday in the country or countries where the SEOCH Participant's bank is located and where the approved currency is cleared, the value date shall be on the next Hong Kong Bank Business Day which is not a bank holiday in such country or countries. Only after the receipt of the funds is confirmed by SEOCH's bank will SEOCH accept those funds as cover for the SEOCH Participant's margin requirements; and
- iv. if the SEOCH Participant's account and SEOCH's account are maintained with the same bank in Hong Kong, the transfer may be effected within the same Bank Business Day, in which case the value date for the transfer of an amount shall be the Bank Business Day on which such bank receives the SEOCH Participant's instructions to effect the transfer. Notwithstanding the foregoing, only after the receipt of the funds is confirmed by SEOCH's bank will SEOCH accept those funds as cover for the SEOCH Participant's margin requirements.

#### **10.4.3 Currencies Revaluation and as Substitution for the Settlement Currency**

##### **10.4.3.1 Revaluation of Approved Currencies**

The value of any approved currency allowed to be used as cover for a SEOCH Participant's margin requirements shall be determined on a daily basis based on the prevailing market prices at the time of revaluation after deducting a haircut of such percentage as determined from time to time by the SEOCH Board.

##### **10.4.3.2 Substitution for the Settlement Currency**

- i. SEOCH Participants may elect to deliver approved currencies as cover for SEOCH Participants' margin requirements provided that the minimum level of margin requirements that is required to be satisfied by cash in the Settlement Currency is at all times maintained. If an approved currency is delivered by a SEOCH Participant as substitution for any margin settled by the SEOCH Participant using the Settlement Currency, such approved currency must be received by SEOCH with finality by 9:30 a.m. on a Business Day in order for the SEOCH Participant to have surplus funds refunded to the SEOCH Participant in the Settlement Currency for same-day value.
- ii. If the approved currency is received after 9:30 a.m., any surplus Settlement Currency will be redelivered to the SEOCH Participant for value on the next Business Day.

## 10.5 The Intra-Day Cash Settlement Process

Where intra-day margin is called for, a SEOCH Participant can enquire the call amount via the relevant CCMS report. Please refer to the *CCMS Terminal User Guide* for CCMS report details. All affected SEOCH Participants shall arrange sufficient funding in their accounts with the Designated Banks or Settlement Banks in order to settle the intra-day margin call within one hour after the intra-day margin call is issued or such shorter period as may from time to time be prescribed by SEOCH. Intra-day margin calls may only be satisfied by payment in cash in the Settlement Currency.

### 10.5A The Special Block Trade Margin Settlement Process

Where Special Block Trade Margin is called for, SEOCH will fax a **Special Block Trade Margin Call Notice** [Appendix C5] to the relevant SEOCH Participant. The SEOCH Participant shall arrange sufficient funding in its account with the Designated Bank or Settlement Bank in order to cover the Special Block Trade Margin call within one hour after notification or such shorter period as may from time to time be prescribed by SEOCH. Special Block Trade Margin calls may only be satisfied by payment in cash in the Settlement Currency. If the SEOCH Participant is unable to meet its Special Block Trade Margin call by the prescribed deadline for any reason, the relevant Block Trade shall, without notice being required to be given to the SEOCH Participant, not be subject to the process of substitution and novation in accordance with the First Schedule to the Clearing Rules or be cleared by SEOCH, and shall be deleted from the Options System as if the Block Trade had never been executed.

## 10.6 Cash Contribution to the Reserve Fund

From time to time, SEOCH Participants may be required to top-up their share of Variable Contributions under 11.2.2. Variable Contributions to the Reserve Fund may be satisfied by payment in cash denominated in Hong Kong Dollars. The settlement method of this Top-up payment is similar to the Daily Cash Settlement Process described earlier in this chapter. SEOCH will issue a Direct Debit Instruction to the SEOCH Participant's account with the Designated Bank or Settlement Bank to collect the amount due on the due date specified by SEOCH. However, this Top-up payment may also be collected by other means, distinct from the Daily Cash Settlement Process, at the discretion of SEOCH. The Variable Contribution of a SEOCH Participant will be recorded in the SEOCH Participant's House CCMS Collateral Account.

## 11. RESERVE FUND

### 11.1 Use of the Reserve Fund

The Reserve Fund exists to support SEOCH's obligations as counterparty to each option contract. If the liquidation value of a Defaulter's outstanding option position, together with its collateral, are insufficient to meet that SEOCH Participant's obligations<sup>4</sup>, the Reserve Fund may be used to meet SEOCH's outstanding liabilities.

SEOCH may apply any amounts standing to the credit of the Reserve Fund as a short-term source of liquid funds to meet any immediate obligations in respect of SEOCH's liabilities which arise under OCH Contracts cleared by it.

The Reserve Fund is financed primarily from the SEOCH Participants' own resources in the form of Initial Contributions and Variable Contributions, but insurance and other coverage may also be used

<sup>4</sup> Note that the Fidelity Fund is not applicable for options. The Rules of the Exchange currently state that no compensation is payable under the Fidelity Fund in respect of stock borrowing and lending arrangements or for trades settled under the CNS System. Similarly, there will be no such compensation payable for option trades or delivery of underlying stocks arising from exercise.

from time to time. The size of the Reserve Fund is made up of the basic elements (including Initial Contributions, interest income, any guarantee, facility and insurance policy) and Variable Contributions.

## 11.2 SEOCH Participants' Reserve Fund Contributions

All the Reserve Fund Contributions of a SEOCH Participant, including its Initial and Variable Contributions, will be credited to its House CCMS Collateral Account and assigned for Reserve Fund purpose. A SEOCH Participant can enquire about its Reserve Fund Contributions via the report COLLATERAL BALANCE generated by CCMS.

### 11.2.1 Initial Contributions

The Initial Contribution that each SEOCH Participant must make is determined by the SEOCH Board. See Appendix E for details.

### 11.2.2 Variable Contributions

In addition to making the Initial Contributions under 11.2.1, SEOCH may demand Variable Contributions from SEOCH Participants through a "Top-up" process such that the existing size of the Reserve Fund after making the Top-up payment will cover all the risk exposures of the Reserve Fund throughout the most recent 20 Business Days. It is designed to ensure that the existing size of the Reserve Fund, which shall be the sum of the basic elements of the Reserve Fund and the Variable Contributions, remains in proportion with the size and volatility of the market.

The first Business Day of every month will be the Top-up calculation date and it is on this day that the re-calculation of the Variable Contributions is carried out. The process works as follows:

First, on the Top-up calculation date, SEOCH calculates the daily risk exposure of the Reserve Fund, which is the greater of the upside or downside risk exposure of the Reserve Fund on that day, and determines the total size of the Reserve Fund based on the maximum daily risk exposure of the Reserve Fund over the most recent 20 Business Days.

Second, SEOCH will deduct the basic elements of the Reserve Fund from the Reserve Fund size to arrive at the Variable Contributions.

Third, the share of the Variable Contributions that each SEOCH Participant must contribute will be calculated. Each SEOCH Participant's share of the Variable Contributions will be equal to that SEOCH Participant's share of the average **total margin requirement** and **net premium paid** over the most recent 20 Business Days. For the purpose of calculating the Variable Contribution of each SEOCH Participant, the total margin requirement and net premium of all Contracts will be measured in Hong Kong dollars or its non-Hong Kong dollar currency equivalent based on the exchange rate determined by SEOCH for each type of Settlement Currency. Any SEOCH Participant that is declared as a Defaulter on or preceding the Top-up calculation date will be excluded from the calculation.

Fourth, for each SEOCH Participant, SEOCH will compare the share of the Variable Contributions *required* with the *actual* share currently provided, and determine the amount, if any, by which the SEOCH Participant's share should be increased. This amount will be the SEOCH Participant's Top-up payment to the Variable Contributions. For the avoidance of doubt, the size of the actual Variable Contribution of each SEOCH Participant shall take into account any Variable Contribution applied and any monies recovered from Defaulters that have been credited to the Reserve Fund as its Variable Contribution in accordance with the Clearing Rules preceding the Top-up calculation date.

Fifth, the SEOCH Participant will be required to pay on demand the difference if the size of the actual Variable Contribution currently in place is lower than the required level. The Top-up payment which maintains the SEOCH Participant's share of the Variable Contributions may be in cash or in such other form of non-cash collateral as approved by SEOCH from time to time. If the

size of the actual Variable Contribution currently in place exceeds the new required level, Variable Contribution will be reduced and the excess refunded.

**11.2.3 Maintenance of the Reserve Fund**

The Reserve Fund will be of a minimum size as determined by SEOCH, regardless of the number of SEOCH Participants.

Ad hoc recalculation of the Variable Contributions, and associated demands for payment, may be made from time to time separate from the regular monthly calculations, if the daily risk exposure of the Reserve Fund exceeds 95% of the existing Reserve Fund size in three consecutive Business Days or if SEOCH considers it appropriate to do so in any other circumstances. If the ad hoc recalculation is required, Variable Contributions will be recalculated and demanded such that 95% of the existing size of the Reserve Fund after the injection of the Variable Contributions will cover all the risk exposures of the Reserve Fund throughout the most recent 20 Business Days.

See Figure 1 for an example of how the maintenance of the Reserve Fund works.

Notwithstanding the above or any other provisions of these Procedures, SEOCH may assess the adequacy of the Reserve Fund and recalculate the requirements for Variable Contributions based on the abovementioned formula or 11.2.2 at such time as it may consider appropriate and following an event of default, SEOCH may further at its absolute discretion determine the appropriate aggregate value of the Reserve Fund for the purpose of calculating any Variable Contributions required taking into account the estimated loss arising from any actions taken by SEOCH in respect of such event of default under Chapter 7 of the Clearing Rules, and in each of the aforementioned circumstances, SEOCH Participants shall pay to SEOCH such Variable Contributions as may from time to time be demanded by SEOCH.

**11.3 Methods of Contribution**

Initial Contributions can only be made in cash in Hong Kong dollars or in any other currency prescribed by SEOCH from time to time.

Variable Contributions can be made in cash in Hong Kong dollars or in any other currency prescribed by SEOCH from time to time or in an approved form of non-cash collateral.

Demands for Reserve Fund Contributions, whether as a result of an increase in Initial Contributions or Variable Contributions, or reimbursement as a result of excess amount in the Reserve Fund after Top-up payment calculation, will be advised individually and confidentially to each SEOCH Participant by the issuance of a clearing report.

<b>Fig. 1: An Example of the Top-up Process</b>	
<u>Prior to the Top-up Calculation</u>	
Current Size of Basic Elements of the Reserve Fund:	HK\$150 million
Current Size of Variable Contributions:	HK\$50 million
	-----
Current SEOCH Reserve Fund Size:	HK\$200 million
Total Number of SEOCH Participants:	100
<u>After Top-up Calculation</u>	

The Top-up calculation concludes that the Reserve Fund size should be increased to HK\$220 million. There is no change to the basic elements of the Reserve Fund. Therefore the new construction of the Reserve Fund should be as follows:

Required Reserve Fund Size:	HK\$220 million
Less: Size of Basic Elements of the Reserve Fund:	HK\$150 million
	-----
Required Size of Variable Contributions:	HK\$70 million
 Total Number of SEOCH Participants:	 100

This HK\$70 million will be shared among the 100 SEOCH Participants pro rata on the basis of each SEOCH Participant's share of the average total margin requirement and net premium paid over the most recent 20 Business Days.

If SEOCH Participant A's share of the newly calculated Variable Contributions is HK\$3 million and its current Variable Contribution is HK\$2.5 million, the Top-up payment will be:

HK\$3 million minus HK\$2.5 million = HK\$500,000

If SEOCH Participant B's share of the newly calculated Variable Contributions is HK\$1.8 million and its current Variable Contribution is HK\$2 million, SEOCH will reimburse the excess as follows :

HK\$2 million minus HK\$1.8 million = HK\$200,000

### 11.3.1 Contributions in Cash and Other Approved Form of Non-Cash Collateral

SEOCH Participants which are required to top-up their Variable Contributions may pay in cash or in an approved form of non-cash collateral that is readily available and free from encumbrances by the start of trading on the due date specified in the clearing report. For cash contributions, SEOCH may direct debit SEOCH Participants' accounts with the Designated Banks or Settlement Banks by 12:00 noon on the third Business Day after the Top-up calculation date or utilise other means of collection as appropriate.

### 11.4 Refund of Surplus Variable Contributions

Refund of the surplus of a SEOCH Participant's Variable Contribution can occur after a Top-up calculation has been performed. If, after a Top-up calculation, the SEOCH Participant has more collateral in the Reserve Fund than is required, SEOCH will return the surplus to the SEOCH Participant via the SEOCH Participant's account with the Designated Bank or Settlement Bank or other means as determined by SEOCH on the third Business Day after the Top-up calculation date.

Notwithstanding the circumstance set forth above, SEOCH shall have the absolute right to withhold any surplus Variable Contribution of a SEOCH Participant for such period as SEOCH may from time to time consider appropriate.

### 11.5 Repealed

## **11.6 Limits on Individual SEOCH Participant Reserve Fund Contributions**

There shall be no limit to the Reserve Fund Requirement to be demanded from a SEOCH Participant. However a SEOCH Participant could limit its total exposure to the Reserve Fund by resigning as a SEOCH Participant.

Any demand for the payment of Reserve Fund Contributions on or preceding the Business Day SEOCH receives a resignation notice from a SEOCH Participant must be met in full by the resigning SEOCH Participant. Any demand made by SEOCH for Replenishment Contribution must also be met in full by a SEOCH Participant unless within three Business Days after the demand is made, SEOCH receives a resignation notice from the SEOCH Participant, in which case its liability will be limited in the manner prescribed in the immediately following paragraph.

Where a SEOCH Participant has submitted a notice to SEOCH resigning as a SEOCH Participant, its liability to provide Reserve Fund Contributions and to make Replenishment Contributions pursuant to any demands made by SEOCH (i) for Reserve Fund Contributions from the Business Day following receipt of its resignation notice and (ii) for Replenishment Contributions from three Business Days before the Business Day SEOCH receives the SEOCH Participant's resignation notice shall be limited to an amount which equals the aggregate of its Reserve Fund Contributions requirement on the Business Day SEOCH receives the resignation notice, plus two times such aggregated amount.

For example, assume that (i) SEOCH issues a notice demanding Replenishment Contribution of HK\$7,000,000 from a SEOCH Participant on a particular Business Day; (ii) SEOCH receives a resignation notice from the SEOCH Participant on the following Business Day; (iii) on the Business Day SEOCH receives the resignation notice, the Initial Contribution of the resigning SEOCH Participant is HK\$1,500,000 and the Variable Contribution already demanded from the resigning SEOCH Participant but remains to be settled by the resigning SEOCH Participant is HK\$500,000. In this case the maximum liability of the resigning SEOCH Participant to contribute to the Reserve Fund would be HK\$6,000,000 (i.e. three times the aggregate of its Initial Contribution of HK\$1,500,000 and its Variable Contribution requirement of HK\$500,000). In other words, it would only be obliged to contribute a further amount of HK\$4,000,000 in addition to its existing Reserve Fund Contributions requirement of HK\$2,000,000.

This maximum exposure excludes any trading losses incurred by that SEOCH Participant; it will continue to be fully liable for these, regardless of its resignation.

When the resignation is approved by the SEOCH Board, its Reserve Fund contribution will be returned in accordance with Clearing Rule 722 (provided that a claim has not been made on it in the interim period). From the time of giving notice, the SEOCH Participant must only enter into closing transactions.

If, after giving notice of its resignation, a SEOCH Participant changes its mind and wishes to remain a SEOCH Participant, it will be required to contribute the full amount of any outstanding additional contribution requested before the resignation can be revoked. But as with all requests to become a SEOCH Participant, the revocation of resignation would be subject to the approval of the SEOCH Board.

## **12. POSITION CONTROL**

### **12.2 Capital Based Position Limit**

The capital based position limit is a measure which seeks to ensure that the risk exposures of SEOCH Participants are commensurate with their financial strength in terms of liquid capital. For

the purpose of this Chapter, the term “liquid capital” shall, where applicable, be construed as the “apportioned liquid capital” under 12.3A.

Under this measure, net, gross and total limits are assigned to each SEOCH Participant on the basis of its latest reported liquid capital as follows:

<i>Net Limit</i>	= 3 x (LC+BG)	(i.e. 3 x (LC+BG) ≥ NRM)
<i>Gross Limit</i>	= 6 x (LC+BG)	(i.e. 6 x (LC+BG) ≥ GRM)
<i>TMR Limit</i>	= 10 x (LC+BG)	(i.e. 10 x (LC+BG) ≥ TMR)

where

NRM	=	the sum of the Risk Margin (determined on a net basis and after offsetting any Mark-to-Market margin credit, where applicable) for all accounts of the SEOCH Participant in DCASS
GRM	=	the sum of the Risk Margin (determined on a net or gross basis as the case may be and after offsetting any Mark-to-Market margin credit, where applicable) for all accounts of the SEOCH Participant in DCASS
TMR	=	the Total Margin Requirement of the SEOCH Participant
LC	=	the apportioned amount or percentage of its liquid capital (calculated as per the Financial Resources Rules) notified to SEOCH under 12.3A, as adjusted upwards by any contribution to the Reserve Fund paid in cash by the SEOCH Participant as of the date of its latest monthly return filed with the Commission under the Financial Resources Rules and received by SEOCH from the Commission
BG	=	bank guarantees arranged in accordance with the same requirements and criteria as those set forth in 7.1 for the use of bank guarantees as a means of providing cover for meeting in part the margin requirements of a SEOCH Participant.

The Mark-to-Market Margin, Risk Margin and Total Margin Requirement of the SEOCH Participant will be measured in Hong Kong dollars or its non-Hong Kong dollar currency equivalent based on the exchange rate determined by SEOCH for each type of Settlement Currency.

For the purpose of calculating the net limit of a SEOCH Participant, all positions in each of its Client Offset Claim Accounts will be aggregated with the short positions in its Omnibus Client Account and margined together on a net basis to determine the Risk Margin and Mark-to-Market Margin of these two types of accounts; the short positions in its Sink Account will be margined together on a net basis to determine the Risk Margin and Mark-to-Market Margin of its Sink Account; and the long positions in its Omnibus Client Account and Sink Account will be treated as nil and disregarded in the calculation.

For the purpose of calculating the gross limit of a SEOCH Participant, since positions in the House, Market Maker, Individual Client and Client Offset Claim Accounts are margined on a net basis, the respective resultant Risk Margin and Mark-to-Market Margin of these accounts will be used in calculating the gross limit of the SEOCH Participant.

For the purpose of calculating the net, gross or total limit of a SEOCH Participant, the following steps will be performed:

- i. The Mark-to-Market Margin, Risk Margin and Total Margin Requirement of all accounts (individually or aggregated if accounts are margined together) of the SEOCH Participant in DCASS will be calculated.

- ii. If the Risk Margin of any account (or accounts if margined together) after offsetting any Mark-to-Market Margin credit or the Total Margin Requirement is a credit, it shall be set to zero.
- iii. The respective Risk Margin and Total Margin Requirements of all accounts will be summed up for the determination of its NRM, GRM and TMR.

The maximum amount of bank guarantees that may be used by a SEOCH Participant at any time is limited to 150% of the latest liquid capital submitted by it to SEOCH. Under no circumstances will a SEOCH Participant be allowed to use bank guarantees which in aggregate exceed 150% of its liquid capital. Furthermore, a SEOCH Participant's own assets which have been taken into account in calculating its liquid capital are not allowed to be used in any form as security for the purpose of arranging a bank guarantee.

Below is an example illustrating the position treatment for calculating the net, gross or total limit of a SEOCH Participant.

**Example**

Assume a SEOCH Participant has the following positions:

<u>Account</u>	<u>Contract</u>	<u>Long</u>	<u>Short</u>
Omnibus Client	HKZ DEC 95 C	<u>1</u>	<u>2</u>
	HKZ JAN 100 P	<u>0</u>	<u>3</u>
Client Offset Claim	HKZ DEC 95 C	<u>0</u>	<u>1</u>
	HKZ JAN 100 P	<u>0</u>	<u>2</u>
Individual Client 001	HKZ DEC 95 C	<u>1</u>	<u>0</u>
	HKZ JAN 100 P	<u>0</u>	<u>3</u>
House	HKZ DEC 95 C	<u>2</u>	<u>0</u>
	HKZ JAN 100 P	<u>0</u>	<u>5</u>
Sink	HKZ DEC 95 C	<u>2</u>	<u>0</u>
	HKZ JAN 100 P	<u>0</u>	<u>2</u>

(i) net limit:

<u>Account</u>	<u>Contract</u>	<u>Margining Basis</u>	<u>Long</u>	<u>Short</u>
Omnibus Client and Client Offset Claim	HKZ DEC 95 C	<u>Net</u>	<u>treat as 0</u>	3
	HKZ JAN 100 P		<u>0</u>	5
Individual Client 001	HKZ DEC 95 C	<u>Net</u>	<u>1</u>	<u>0</u>
	HKZ JAN 100 P		<u>0</u>	<u>3</u>
House	HKZ DEC 95 C	<u>Net</u>	<u>2</u>	<u>0</u>
	HKZ JAN 100 P		<u>0</u>	<u>5</u>
Sink	HKZ DEC 95 C	<u>Net</u>	<u>treat as 0</u>	<u>0</u>
	HKZ JAN 100 P		<u>0</u>	<u>2</u>

For the purpose of calculating the net limit, the short positions in the SEOCH Participant's Omnibus Client Account and the positions in its Client Offset Claim Account will be aggregated and the 1 and 2 long HKZ DEC 95 C in the Omnibus Client and Sink Accounts respectively will be treated as nil and disregarded in the calculation.

(ii) gross or total limit:

<u>Account</u>	<u>Contract</u>	<u>Margining Basis</u>	<u>Long</u>	<u>Short</u>
Omnibus Client	HKZ DEC 95 C	<u>Gross</u>	<u>1</u>	<u>2</u>
	HKZ JAN 100 P		<u>0</u>	<u>3</u>
Client Offset Claim	HKZ DEC 95 C	<u>Net</u>	<u>0</u>	<u>1</u>
	HKZ JAN 100 P		<u>0</u>	<u>2</u>
Individual Client 001	HKZ DEC 95 C	<u>Net</u>	<u>1</u>	<u>0</u>

	HKZ JAN 100 P		<u>0</u>	<u>3</u>
House	HKZ DEC 95 C	<u>Net</u>	<u>2</u>	<u>0</u>
	HKZ JAN 100 P		<u>0</u>	<u>5</u>
Sink	HKZ DEC 95 C	<u>Gross</u>	<u>2</u>	<u>0</u>
	HKZ JAN 100 P		<u>0</u>	<u>2</u>

For the purpose of calculating the gross or total limit, the positions in the Client Offset Claim, Individual Client 001 and House Accounts of the SEOCH Participant will be margined on a net basis.

### 12.3A Apportionment of Liquid Capital

Where a SEOCH Participant is also a CCASS Clearing Participant or HKCC Participant or conduct various types of regulated activities under the Securities and Futures Ordinance, that SEOCH Participant must apportion either a designated amount or a percentage of the liquid capital (unless otherwise determined by SEOCH, as per its latest monthly return filed with the Commission under the Financial Resources Rules and received by SEOCH from the Commission) for the purpose of its Exchange Traded Options Business or satisfying its payment or other obligations as a SEOCH Participant to SEOCH, and such SEOCH Participant's capital based position limit will be calculated on the basis of its apportioned liquid capital as notified to SEOCH. Notification of a SEOCH Participant's initial liquid capital apportionment or any change thereof shall be made by such SEOCH Participant submitting to SEOCH an **Application/Change Request for Liquid Capital Apportionment Form** [Appendix B9] according to the schedule determined by SEOCH from time to time. Any notification of changes to the apportionment received by SEOCH before a time specified by SEOCH from time to time, shall become effective on the same Business Day the notification is received by SEOCH. Otherwise, changes to the apportionment shall become effective on the commencement of the next Business Day following receipt of the notification by SEOCH. Notwithstanding the foregoing, SEOCH reserves the right to accept or reject any initial apportionment or change of apportionment notified to it at its sole discretion. If no apportionment is notified to SEOCH, SEOCH reserves the right to apportion the liquid capital on behalf of the SEOCH Participant.

### 12.5 Remedies in Case of Breach

A SEOCH Participant whose positions have breached the net, gross and/or total limit assigned to it by SEOCH on a daily basis under 12.2 will be given 10 Business Days to comply with the limit(s) provided that during such time, the SEOCH Participant pays SEOCH an additional margin equivalent to 25% of:

- i. its NRM in excess of its net limit;
- ii. its GRM in excess of its gross limit; or
- iii. its TMR in excess of its total limit;

whichever is the highest.

If the SEOCH Participant fails to pay or deliver any such additional margin, the breach must be remedied immediately.

**15. TYPHOONS AND RAINSTORMS**

Upon the hoisting or the lowering of a Typhoon Signal No. 8 or above, or the issuance or cancellation of a Black Rainstorm Warning, trading in the options market will be operated in accordance with that in the cash market of the Exchange as described in the Rules of the Exchange. For details, please refer to the Exchange Rules and Operational Trading Procedures.

Under such circumstances, unless otherwise decided by the SEOCH Board, matters relating to clearing functions described in 4.1 and 4.3 of these Procedures, cash settlement, delivery or redelivery of cash via CCMS, transfer of collateral securities between CCMS Collateral Accounts and CCASS Stock Accounts and stock settlement process will be handled in the manner described below.

**15.2.1 Typhoons**

- i. If a Typhoon Signal No. 8 or above is hoisted by the Hong Kong Observatory before 9:00 a.m. on a Business Day and is not lowered at 12:00 noon on the same day:
  - generally, cash settlement transactions including collection of Daily Settlement Call, intra-day margin call and cash delivery or cash redelivery requests by SEOCH Participants will not be effected for the day. In such event, the amount of the Daily Settlement Call will be collected on the first Business Day on which banks in Hong Kong resume services to the public (the “first business day”) and will be due for settlement by no later than 9:15 a.m. if the first business day is a full banking day or one hour after resumption of money settlement services if the first business day is not a full banking day; and
  - as CCMS will not be available, money settlement services such as processing of cash delivery or cash redelivery request from SEOCH Participants will not be available for the day; nor would SEOCH issue any intra-day margin or Special Block Trade Margin call for the day.
- ii. If a Typhoon Signal No. 8 or above is hoisted before 9:00 a.m. on a Business Day and is lowered at or before 12:00 noon on the same day:
  - money settlement services will normally be available two hours after the lowering of the Signal;
  - the collection of Daily Settlement Call will be effected and due for settlement one hour after the resumption of money settlement services;
  - normally, intra-day margin or Special Block Trade Margin call, if any, will be issued two hours after the lowering of the Signal. The intra-day margin or Special Block Trade Margin call, if any, once issued will be due for settlement by no later than one hour after the call is issued as in the case of a normal Business Day; and
  - cash delivery or cash redelivery requests submitted via CCMS before the normal cut-off time of 11:00 a.m. of the day will be processed for settlement in accordance with 10.4 of these Procedures on a best effort basis and subject to the availability of applicable services of the corresponding banks.
- iii. If a Typhoon Signal No. 8 or above is hoisted at or after 9:00 a.m. on a Business Day:
  - the collection of Daily Settlement Call will be effected as normal and will be due for settlement by SEOCH Participants not later than 9:15 a.m. on the same day;
  - any intra-day margin or Special Block Trade Margin call issued one hour or more before the Signal is hoisted will remain due for settlement within one hour after the intra-day margin or Special Block Trade Margin call is issued;

- in respect of cash delivery or cash redelivery requests submitted via CCMS before the normal cut-off time of 11:00 a.m. of the day, if the delivery or redelivery request is accepted, the SEOCH Participants' cash delivery or cash redelivery request will be processed in accordance with 10.4 of these Procedures on a best effort basis and subject to the availability of applicable services of the corresponding banks; and
- in any event, the SEOCH Participant concerned will be informed of whether its delivery or redelivery request could be settled for same day value before the close of business of the day.

### **15.2.2 Rainstorms**

- i. If a Black Rainstorm Warning is issued before 9:00 a.m. on a Business Day and is not cancelled at 12:00 noon on the same day:
  - generally, cash settlement transactions including collection of Daily Settlement Call, intra-day margin call and cash delivery or cash redelivery requests by SEOCH Participants will not be effected for the day. In such event, the amount of the Daily Settlement Call will be collected on the first Business Day on which banks in Hong Kong resume services to the public (the "first business day") and will be due for settlement by no later than 9:15 a.m. if the first business day is a full banking day or one hour after resumption of money settlement services if the first business day is not a full banking day; and
  - as CCMS will not be available, money settlement services such as processing of cash delivery or cash redelivery request from SEOCH Participants will not be available for the day; nor would SEOCH issue any intra-day margin or Special Block Trade Margin call for the day.
- ii. If a Black Rainstorm Warning is issued before 9:00 a.m. on a Business Day and is cancelled at or before 12:00 noon on the same day:
  - money settlement services will normally be available two hours after the cancellation of the Black Rainstorm Warning;
  - the collection of Daily Settlement Call will be effected and due for settlement one hour after the resumption of money settlement services;
  - normally, intra-day margin or Special Block Trade Margin call, if any, will be issued two hours after the cancellation of the Black Rainstorm Warning. The intra-day margin or Special Block Trade Margin call, if any, once issued will be due for settlement not later than one hour after the call is issued as in the case of a normal Business Day; and
  - cash delivery or cash redelivery requests submitted via CCMS before the normal cut-off time of 11:00 a.m. of the day will be processed for settlement in accordance with 10.4 of these Procedures on a best effort basis and subject to the availability of applicable services of the corresponding banks.
- iii. If a Black Rainstorm Warning is issued at or after 9:00 a.m. on a Business Day, normal cash settlement transactions including collection of Daily Settlement Call, intra-day margin call and cash delivery or cash redelivery requests by SEOCH Participants will be processed for the day.

**APPENDIX B10. CCMS COLLATERAL ACCOUNT DESIGNATION FORM FOR MARKS, MARGIN AND CONCENTRATION COLLATERAL COLLECTION BY SEOCH**

To : The SEHK Options Clearing House Limited (“SEOCH”)  
(Fax: 2868 0134                      Hotline: 2211 6932)

Date : \_\_\_\_\_

**1. Particulars of SEOCH Participant**

Name		
Participant ID		
Contact Persons’ Names	1.	2.
Contact Persons’ Telephone Numbers	1.	2.
Contact Persons’ Fax Numbers	1.	2.

**2. Designation of House CCMS Collateral Account in SEOCH for the Collection and Payment of Marks, Margin and Concentration Collateral of Pending Stock Positions to be Settled via CCASS under the CNS System**

For the purpose of satisfying the Marks, Margin and Concentration Collateral from time to time required by HKSCC in respect of our pending stock positions which are to be settled via CCASS under the CNS System (“Marks, Margin and Concentration Collateral Requirements”), we hereby request and authorize SEOCH to:

- (i) collect from time to time through SEOCH’s money settlement process, from our Designated Bank or Settlement Bank and to the credit of the following House CCMS Collateral Account in SEOCH, such amount as may be required to satisfy our Marks, Margin and Concentration Collateral Requirements; and
- (ii) debit from the following House CCMS Collateral Account in SEOCH and transfer the same to our CCMS Collateral Account in HKSCC such amount of cash collected as aforesaid and such excess cash collateral standing to the credit of the account as may from time to time be required to satisfy our Marks, Margin and Concentration Collateral Requirements:

SEOCH House CCMS Collateral Account Number	
--	--

We hereby confirm and acknowledge as follows:

- (i) this Designation Form supersedes any previous Designation Form(s) given by us to SEOCH;
- (ii) SEOCH will not effect any transfer as abovementioned if the amount available for transfer in the designated House CCMS Collateral Account is not sufficient to satisfy any Marks, Margin and Concentration Collateral Requirements in full;
- (iii) SEOCH shall not in any way be liable to us for any delay, interruption or inability to effect any transfer as abovementioned; and
- (iv) the request and authority given hereunder will continue in full force and effect unless and until SEOCH has received from us at least one Business Day’s notice that this Designation Form shall be terminated.

\_\_\_\_\_  
Authorised Signature(s) of SEOCH Participant  
with company chop

For SEOCH Use		
<u>Action</u>	<u>Reviewer</u>	<u>Remarks</u>
Accepted		
Rejected		

# HKEX 香港交易所

Designation Effective on		

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**B-10**



**APPENDIX D. PORTFOLIO RISK MARGINING SYSTEM OF HKEX (PRIME)**

**INTRODUCTION**

This appendix describes the calculation algorithm of the Portfolio Risk Margining System of HKEX (PRIME) -- the margining technique that will be used by SEOCH (for a detailed description, please refer to the PRIME Margining Guide). The process is run each day, after the close of trading or whenever it is required on an intra-day basis. It consists of the following steps.

**Step 1: Marginable Positions - Identify what is to be margined**

The first stage in the process is to identify, within each SEOCH Participant's portfolio, which open option positions are marginable. The marginable positions are broken down by option class<sup>1</sup> and, within each option class, by each DCASS account. If the account is margined gross, the long option positions are eliminated from the marginable position. The marginable positions for these accounts therefore consist of short option positions only.

Steps 2 to 8 below are then carried out separately for each account within each option class i.e.

Perform steps 2 to 8 below for option class 1, account 1, then  
Perform steps 2 to 8 below for option class 2, account 1, then

- 
- 

Perform steps 2 to 8 below for option class n, account 1, then  
Perform steps 2 to 8 below for option class 1, account 2, then  
Perform steps 2 to 8 below for option class 2, account 2, then

- 
- 

Perform steps 2 to 8 below for option class n, account 2, then

- 
- 

Perform steps 2 to 8 below for option class 1, account k, then  
Perform steps 2 to 8 below for option class 2, account k, then

- 
- 

Perform steps 2 to 8 below for option class n, account k, then

**Step 2: Calculate Mark-to-Market Margin for each option class**

PRIME marks the marginable positions to market with the market closing price (or known as the fixing price) of each option series determined by SEOCH (market closing price \* contract size \* size of marginable positions) to calculate the Mark-to-Market Margin. The resulting value of the Mark-to-Market Margin for a long option position will be a credit (i.e. it will have a negative value) whereas that for a short option position will be a debit (i.e. it will have a positive value). The Mark-to-Market Margins of all option series within the same option class are then aggregated to produce the Mark-to-Market Margin of that option class. This identifies the cost of liquidating the entire portfolio for this account within this option class at the fixing price.

**Step 3: Create Risk Array for each option series**

The specific set of the risk scenarios are defined in terms of (a) how much the price of the underlying instrument is expected to change over one trading day which is defined as the Price Scan Range, and (b) how much the volatility of that underlying price is expected to change over one trading day which is defined as the Volatility Scan Range. The amount by which the stock option contract will gain or lose value over one trading day under a risk scenario is called the Risk Array value for that scenario. The set of Risk Array values for that option contract under the full set of risk scenarios constitutes the Risk Array.

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<sup>1</sup>An option class consists of all the options on one particular underlying stock.

The set of risk scenarios are as follows:

<b>Scenario</b>	<b>Underlying Price Change</b>	<b>Volatility Change</b>
1.	Unchanged	Up
2.	Unchanged	Down
3.	Up 1/3 the Price Scan Range	Up
4.	Up 1/3 the Price Scan Range	Down
5.	Down 1/3 the Price Scan Range	Up
6.	Down 1/3 the Price Scan Range	Down
7.	Up 2/3 the Price Scan Range	Up
8.	Up 2/3 the Price Scan Range	Down
9.	Down 2/3 the Price Scan Range	Up
10.	Down 2/3 the Price Scan Range	Down
11.	Up 3/3 the Price Scan Range	Up
12.	Up 3/3 the Price Scan Range	Down
13.	Down 3/3 the Price Scan Range	Up
14.	Down 3/3 the Price Scan Range	Down
15.	Up by a multiple of the Price Scan Range (Under this scenario, only a fraction of the loss, known as the cover fraction, will be considered. The multiple and the cover fraction are governed by the Extreme Move Multiplier and the Extreme Move Coverage Fraction respectively)	Unchanged
16.	Down by a multiple of the Price Scan Range (Under this scenario, only a fraction of the loss, known as the cover fraction, will be considered. The multiple and the cover fraction are governed by the Extreme Move Multiplier and the Extreme Move Coverage Fraction respectively)	Unchanged

**Step 4: Calculate Scan Risk for each option class**

For net margined account, multiply the value gain (-ve) or loss (+ve) under each scenario by the corresponding position size to find the Scan Risk, which is the largest total loss of this option class among the 16 scenarios. If there are only value gains and no value loss under the scenarios, the Scan Risk will be set to zero.

For gross margined account, the loss is determined on a series level. The value gain (-ve) or loss (+ve) under each scenario is multiplied by the corresponding position size to find the largest total loss of this option series among the 16 scenarios. The Scan Risk is calculated by the summation of the largest total loss of each individual option series.

**Step 5: Calculate Intra-commodity (Intermonth) Spread Charge for each option class**

As PRiME scans underlying prices within a single underlying instrument, it assumes that price movement correlates perfectly across contract months. Since the price movement across contract months does not generally exhibit perfect correlation, PRiME adds an Intra-commodity Spread Charge to the Scan Risk associated with each underlying instrument under net margining. No Intra-commodity Spread Charge will be applied for gross margined accounts.

There may be different deltas calculated for an option series under different scenarios in the risk array. However, PRiME employs only one delta value per option series, called the "Composite Delta". It is derived as the weighted average of the deltas associated with each scenario. The weighting associated with each scenario is based upon the probability of the associated price movement. The more likely the price movement, the higher is the weighting applied.

The Composite Delta for each option series is calculated by multiplying the series Composite Delta by the corresponding position size. The Composite Delta for each contract month is then calculated by the summation of the Composite Delta values of all the option series of the same contract month. From the Composite Delta values

obtained for all contract months, the total net long and net short Composite Delta values are identified. The absolute value of the total net long Composite Delta value is then compared with the absolute value of the total net short Composite Delta value and the smaller absolute value is selected. The Intra-commodity Spread Charge can then be calculated by multiplying the smaller absolute value by the Intra-commodity Spread Charge Rate for this option class.

**Step 6: Calculate Commodity Risk (Risk Margin) of each option class**

The Commodity Risk of the option class for each account can be obtained by the addition of the Scan Risk and the Intra-commodity Spread Charge.

**Step 7: Compare Commodity Risk with the Short Option Minimum Charge for each option class**

The Short Option Minimum Charge is calculated by taking the number of short call or short put options, whichever is higher, and multiplying it by the Short Option Minimum Charge Rate. If such charge is greater than the Commodity Risk as calculated in Step 6, such Short Option Minimum Charge will become the Commodity Risk of this option class.

**Step 8: Calculate Total Margin Requirement of each DCASS account**

The Mark-to-Market Margin and the Commodity Risk of each option class are aggregated to produce the Total Margin Requirement for each option class in each DCASS account. This results in a margin credit or margin debit for each option class in each net margined account and a margin debit in each option class in each gross margined account. There cannot be a margin credit for a gross margined account because long positions are excluded from the marginable positions.

The Total Margin Requirements of all option classes with the same Currency of the Contract within the same account are then aggregated to produce the Total Margin Requirement in that currency for that account. During the aggregation process for a net margined account, any margin credit of an option class will be used to offset the margin debits of the other option classes with the same Currency of the Contract within the same account. This will result in a margin credit or margin debit for each Currency of the Contract in each net margined account and a margin debit for each Currency of the Contract in each gross margined account.

After the aggregation, if there remains a margin credit for any Currency of the Contract in a net margined account and a margin debit for any other Currency of the Contract within the same net margined account, such margin credit will be used to offset the margin debit. Before the offset, the margin credit will be converted into the Currency of the Contract in which the margin debit is denominated at such exchange rate as may be determined by SEOCH.

The Total Margin Requirement for each of the accounts will then be converted from the Currency of the Contract to the Settlement Currency at such exchange rate as may be determined by SEOCH if the Currency of the Contract and the Settlement Currency are not the same.

**Step 9: Evaluate Total Margin Requirement of each CCMS Collateral Account****a) Settlement through House CCMS Collateral Account**

The Total Margin Requirement in each Settlement Currency to be settled through the House CCMS Collateral Account will be the summation of the individual Total Margin Requirements in that Settlement Currency for all DCASS accounts settled through the House CCMS Collateral Account. Where the Total Margin Requirement for a DCASS account is a margin credit, it will be set to zero before the summation.

**b) Settlement through Client CCMS Collateral Account**

The Total Margin Requirement in each Settlement Currency to be settled through the Client CCMS Collateral Account will be the summation of the individual Total Margin Requirements in that Settlement Currency for all DCASS accounts settled through the Client CCMS Collateral Account. Where the Total Margin Requirement for a DCASS account is a margin credit, it will be set to zero before the summation.

The Total Margin Requirement in a Settlement Currency for the SEOCH Participant is the sum of the Total Margin Requirements in that Settlement Currency settled through the House and Client CCMS Collateral Accounts.

**Step 10: Calculate amount to be collected for each CCMS Collateral Account**

The actual amounts of margin in each Settlement Currency demanded each day by SEOCH (the margin call) will be equal to the Total Margin Requirements to be settled through CCMS, minus any collateral currently provided. The margin may be payable in cash or in an acceptable form of collateral as prescribed by SEOCH. The margin call for the House CCMS Collateral Account and the Client CCMS Collateral Account will be calculated separately.

If the Total Margin Requirements to be settled through CCMS are **less** than the total amount of collateral which the SEOCH Participant has currently provided to SEOCH, SEOCH will not automatically return the excess to the SEOCH Participant unless upon request.

Following is an example of how the method works on an imaginary option portfolio:

**EXAMPLE OF PRIME MARGINING**

Assume there are two option classes (HKZ with Currency of the Contract and Settlement Currency in HK\$ and RMZ with Currency of the Contract and Settlement Currency in RMB) in the market and a SEOCH Participant has the following positions:

In the Omnibus Client Account (margined gross and its obligation will be settled through the Client CCMS Collateral Account):

1. Short 20 HKZ DEC 95 Calls
2. Long 10 HKZ JAN 100 Puts
3. Short 50 HKZ JAN 100 Puts
4. Short 50 RMZ JAN 90 Puts

In the Individual Client Account 001 (margined net and its obligation will be settled through the Client CCMS Collateral Account):

5. Long 5 HKZ DEC 95 Calls

In the Client Offset Claim Account (margined net and its obligation will be settled through the Client CCMS Collateral Account):

6. Short 30 HKZ DEC 95 Calls
7. Short 30 HKZ JAN 100 Puts

In the House Account (margined net and its obligation will be settled through the House CCMS Collateral Account):

8. Short 5 HKZ DEC 95 Calls
9. Long 10 HKZ JAN 100 Puts
10. Short 50 HKZ JAN 100 Puts
11. Long 30 RMZ JAN 90 Puts

**A) Identify Marginable Positions**

Contract	Underlying Closing	Account	Long	Short	Marginable Position
HKZ DEC 95 C	HK\$100.00	Omnibus Client	0	20	20S
		Individual Client 001	5	0	5L
		Client Offset Claim	0	30	30S
		House	0	5	5S
HKZ JAN 100 P	HK\$100.00	Omnibus Client	10	50	50S
		Client Offset Claim	0	30	30S
		House	10	50	40S
RMZ JAN 90 P	RMB 90.00	Omnibus Client	0	50	50S
		House	30	0	30L

L: Long; S: Short

Note that the 10 long HKZ JAN 100 puts in the Omnibus Client Account are not netted against the 50 short positions. This is what is meant by “gross” margining. If the 10 long positions were to be netted, it would mean that the client(s) holding the long positions were partly covering the risk of the client(s) with short positions.

**B) Calculate Mark-to-Market Margin for each option class**

The process is clearer if we re-order the positions by account type.

Contract	Contract Size	Mark to Market Price	Marginable Position	Mark-to-Market Margin (HK\$) <sup>a</sup>	Mark-to-Market Margin (RMB) <sup>a</sup>
<b>Omnibus Client Positions:</b>					
HKZ DEC 95 C	400	6.00	20S	48,000	
HKZ JAN 100 P	400	4.00	50S	80,000	
RMZ JAN 90 P	400	4.00	50S		80,000
				128,000	80,000
<b>Client Offset Claim Positions:</b>					
HKZ DEC 95 C	400	6.00	30S	72,000	
HKZ JAN 100 P	400	4.00	30S	48,000	
				120,000	
<b>Individual Client 001 Positions:</b>					
HKZ DEC 95 C	400	6.00	5L	-12,000	
				-12,000	
<b>House Positions:</b>					
HKZ DEC 95 C	400	6.00	5S	12,000	
HKZ JAN 100 P	400	4.00	40S	64,000	
RMZ JAN 90 P	400	4.00	30L		-48,000
				76,000	-48,000

(a) Mark-to-Market Margin for an option series = option market value \* no. of contracts held \* contract size.

**C) Create Risk Array and Calculate Scan Risk for each option class**

The following Risk Arrays are created to calculate the Scan Risk of each option class in each account. Please note that gross and net margined accounts will be evaluated on a series and portfolio level basis respectively.

**Risk Arrays of HKZ (HK\$)**

Scenario	DEC 95 C	JAN 100 P	Omnibus Client (DEC 95C) <sup>b</sup>	Omnibus Client (JAN 100 P) <sup>b</sup>	Individual Client 001 <sup>b</sup>	Client Offset Claim <sup>b</sup>	House <sup>b</sup>
1	0	0	0	0	0	0	0
2	+100	0	-2,000	0	500	-3,000	-500
3	-600	+700	12,000	-35,000	-3,000	-3,000	-25,000
4	-600	+600	12,000	-30,000	-3,000	0	-21,000
5	+600	-600	-12,000	30,000	3,000	0	21,000
6	+600	-500	-12,000	25,000	3,000	-3,000	17,000
7	-1,200	+1,300	24,000	-65,000	-6,000	-3,000	-46,000
8	-1,200	+1,300	24,000	-65,000	-6,000	-3,000	-46,000
9	+1,300	-1,200	-26,000	60,000	6,500	-3,000	41,500
10	+1,300	-1,100	-26,000	55,000	6,500	-6,000	37,500
11	-2,000	+2,100	<b>40,000</b>	-105,000	-10,000	-3,000	-74,000
12	-1,900	+2,000	38,000	-100,000	-9,500	-3,000	-70,500
13	+2,100	-2,000	-42,000	<b>100,000</b>	<b>10,500</b>	-3,000	<b>69,500</b>
14	+1,900	-1,800	-38,000	90,000	9,500	-3,000	62,500
15	-1,500	+1,400	30,000	-70,000	-7,500	<b>3,000</b>	-48,500
16	+1,300	-1,200	-26,000	60,000	6,500	-3,000	41,500

Scan Risk of

Omnibus Client Account, DEC 95 C = HK\$40,000

Omnibus Client Account, JAN 100 P = HK\$100,000

Individual Client Account = HK\$10,500

Client Offset Claim Account = HK\$3,000

House Account = HK\$69,500

**Risk Arrays of RMZ (RMB)**

Scenario	JAN 90 P	Omnibus Client (JAN 90 P) <sup>b</sup>	House <sup>b</sup>
1	0	0	0
2	0	0	0
3	+490	-24,500	14,700
4	+420	-21,000	12,600
5	-420	21,000	-12,600
6	-350	17,500	-10,500
7	+910	-45,500	27,300
8	+910	-45,500	27,300
9	-840	42,000	-25,200
10	-770	38,500	-23,100
11	+1,470	-73,500	<b>44,100</b>
12	+1,400	-70,000	42,000
13	-1,400	<b>70,000</b>	-42,000
14	-1,260	63,000	-37,800
15	+980	-49,000	29,400
16	-840	42,000	-25,200

Scan Risk of

Omnibus Client Account = RMB70,000

House Account = RMB44,100

(b) Scan Risk under each scenario = summation of (gain or loss \* size of marginable positions) for each series

**D) Calculate Intra-commodity (intermonth) Spread Charge for each option class**

Assume the Composite Deltas of the series and the Intra-commodity Spread Charge Rates are as follows:

Option Class	Series	Composite Delta	Spread Charge Rate for each Composite Delta
HKZ	HKZ DEC 95 C	0.45	HK\$900
	HKZ JAN 100 P	-0.52	
RMZ	RMZ JAN 90 P	-0.50	RMB720

Composite Delta for each contract month and Intra-commodity Spread Charge of HKZ for each account:

Contract Month	Omnibus Client	Individual Client 001	Client Offset Claim	House
DEC	NA	2.25	-13.5	-2.25
JAN	NA	0	15.6	20.8
Net Long	NA	2.25	15.6	20.8
Net Short	NA	0	-13.5	-2.25
Minimum of absolute value of Net Long and absolute value of Net Short	NA	0	13.5	2.25
Intra-commodity Spread Charge <sup>c</sup>	NA	0	HK\$12,150	HK\$2,025

Composite Delta for each contract month and Intra-commodity Spread Charge of RMZ for each account:

Contract Month	Omnibus Client	House
JAN	NA	-15
Net Long	NA	0
Net Short	NA	-15
Minimum of absolute value of Net Long and absolute value of Net Short	NA	0
Intra-commodity Spread Charge <sup>c</sup>	NA	0

(c) Intra-commodity Spread Charge = Minimum ( | net long | , | net short | ) \* Spread Charge Rate for each Composite Delta

**E) Calculate Commodity Risk for each option class**

The Commodity Risk of each option class for each account is calculated by the addition of the Scan Risk and the Intra-commodity Spread Charge.

Commodity Risk of HKZ (HK\$):

	Omnibus Client (DEC 95 C)	Omnibus Client (JAN 100 P)	Individual Client 001	Client Offset Claim	House
Scan Risk	40,000	100,000	10,500	3,000	69,500
Intra-commodity Spread Charge	NA	NA	0	12,150	2,025
Commodity Risk	40,000	100,000	10,500	15,150	71,525

Commodity Risk of RMZ (RMB):

	Omnibus Client (JAN 90 P)	House
Scan Risk	70,000	44,100
Intra-commodity Spread Charge	NA	0
Commodity Risk	70,000	44,100

**F) Compare Commodity Risk with Short Option Minimum Charge for each option class**

Compare the Commodity Risk with the Short Option Minimum Charge for each option class for each account, assuming that the Short Option Minimum Charges per contract for HKZ and RMZ are HK\$200 and RMB100 respectively.

Commodity Risk of HKZ (HK\$):	Omnibus Client (DEC 95 C)	Omnibus Client (JAN 100 P)	Individual Client 001	Client Offset Claim	House
Commodity Risk	40,000	100,000	10,500	15,150	71,525
Maximum (short call, short put)	20	50	0	30	40
Short Option Minimum Charge	4,000	10,000	0	6,000	8,000
Commodity Risk after comparison of Short Option Minimum Charge	40,000	100,000	10,500	15,150	71,525

Commodity Risk of RMZ (RMB):

	Omnibus Client (JAN 90 P)	House
Commodity Risk	70,000	44,100
Maximum (short call, short put)	50	0
Short Option Minimum Charge	5,000	0
Commodity Risk after comparison of Short Option Minimum Charge	70,000	44,100

For gross margined account such as the Omnibus Client Account, the Commodity Risk for an option class is calculated by the summation of the individual Commodity Risk (after comparison with the Short Option Minimum Charge) of each series in that option class.

For the Omnibus Client Account,

The Commodity Risk of HKZ (HK\$) = HK\$100,000 + HK\$40,000 = HK\$140,000

The Commodity Risk of RMZ (RMB) = RMB70,000

**G) Calculate Total Margin Requirement for each DCASS account**

- i) The Total Margin Requirement of each option class in each DCASS account is calculated by the addition of the Mark-to-Market Margin and the Commodity Risk of that option class in that account.

Total Margin Requirement of HKZ (HK\$):

	Omnibus Client	Individual Client 001	Client Offset Claim	House
Mark-to-Market Margin	128,000	-12,000	120,000	76,000
Commodity Risk	140,000	10,500	15,150	71,525
Total Margin Requirement	268,000	-1,500	135,150	147,525

Total Margin Requirement of RMZ (RMB):

	Omnibus Client	House
Mark-to-Market Margin	80,000	-48,000
Commodity Risk	70,000	44,100
Total Margin Requirement	150,000	-3,900

For a net margined account, any margin credit of an option class will be used to offset the margin debits of the other option classes with the same Currency of the Contract within the same account.

Since there is only one option class for each of the currencies (HK\$ and RMB) within the net margined accounts (Individual Client 001, Client Offset Claim and House Accounts), no margin offset will be applied.

- ii) The Total Margin Requirement in each Currency of the Contract for each DCASS account is the sum of the Total Margin Requirements of all option classes with that Currency of the Contract within that account.

Total Margin Requirement in each Currency of the Contract:

	Omnibus Client	Individual Client 001	Client Offset Claim	House
Total Margin Requirement (HK\$)	268,000	-1,500	135,150	147,525
Total Margin Requirement (RMB)	150,000	0	0	-3,900

For the net margined House account, there is a margin credit in RMB and a margin debit in HK\$. The margin credit in RMB will be converted into HK\$ before it is used to offset the margin debit in HK\$.

Total Margin Requirement (HK\$) for House Account after the offset  
 = - (RMB 3,900 x HK\$1.2 per RMB<sup>d</sup>) + HK\$147,525  
 = HK\$142,845

No currency conversion is required because the Currency of the Contract and the Settlement Currency of the Total Margin Requirements of all accounts are the same.

(d) assuming exchange rate = HK\$1.2 per RMB

### H) Evaluate Total Margin Requirement for each CCMS Collateral Account

Omnibus Client, Individual Client 001 and Client Offset Claim Accounts' obligations are settled through the Client CCMS Collateral Account while House Account's obligations are settled through the House CCMS Collateral Account. The Total Margin Requirements settled through the CCMS Collateral Accounts are as follows:

Client CCMS Collateral Account :

Total Margin Requirement (HK\$) = HK\$268,000 + HK\$0<sup>e</sup> + HK\$135,150 = HK\$403,150

Total Margin Requirement (RMB) = RMB150,000

House CCMS Collateral Account :

Total Margin Requirement (HK\$) = HK\$142,845

Total Margin Requirement (RMB) = RMB0

(e) Any margin credit of an account will be set to zero before summation and will not be used to offset the margin debits of the other accounts.

### I) Calculate amount to be collected for each CCMS Collateral Account

Suppose the collateral delivered is HK\$100,000 in cash for each of the Client and House CCMS Collateral Accounts.

Client CCMS Collateral Account:

In this case, the amount (in HK\$)<sup>f</sup> to be collected = HK\$403,150 - HK\$100,000 = HK\$303,150

The amount (in RMB)<sup>f</sup> to be collected = RMB150,000 - RMB0 = RMB150,000

House CCMS Collateral Account:

The amount (in HK\$)<sup>f</sup> to be collected = HK\$142,845 - HK\$100,000 = HK\$42,845

The amount (in RMB)<sup>f</sup> to be collected = RMB0

(f) Amount to be collected = Total Margin Requirement settled through CCMS Collateral Account minus collateral delivered

**APPENDIX E. MINIMUM RESERVE FUND CONTRIBUTIONS OF SEOCH PARTICIPANTS**

The Initial Contributions for different categories of SEOCH Participants are as follows:

- i. HK\$5,000,000 for a General Clearing Participant plus an additional HK \$1,500,000 for each subsequent clearing arrangement when the General Clearing Participant already has three valid Clearing Agreements in place.
- ii. HK \$1,500,000 for a Direct Clearing Participant.

SEOCH may vary the amount of Initial Contribution generally or in respect of any particular SEOCH Participant having regard to, amongst other things, any restrictions applying to that SEOCH Participant’s Exchange Traded Options Business or conditions applying to its SEOCH Particpantship.

**APPENDIX I. INTEREST AND ACCOMMODATION CHARGE STRUCTURE**

**Interest and Accommodation Charge Structure**

- 1. APPROVED CURRENCIES  
INTEREST PAYABLE TO OR LEVIED ON SEOCH PARTICIPANTS

Margin requirement covered by cash	)	to be determined by SEOCH from time to time in accordance with prevailing bank savings rates
Cash other than Reserve Fund Contributions	)	
	)	
	)	

Variable Contributions to the Reserve Fund made in cash	)	to be determined by SEOCH from time to time in accordance with the prevailing deposit rates
	)	