Appendix 2

Compliance Reminder on Risk Management
(Applicable to Clearing Participants[1] only)

Risk management is one of the key responsibilities of Clearing Participants ("CPs") of HKSCC, HKCC and SEOCH (collectively, the "Clearing Houses"), as set out under the admission materials and relevant rules and procedures of the Clearing Houses.

CPs should set up robust risk management frameworks and controls, so as to ensure the proper assessment, monitoring and mitigation of key risks (including but not limited to, credit risk, liquidity risk, operational risk, market risk and capital) at all times.

In the 2019 Annual Attestation and Inspection Programme, control weaknesses were found in the following risk management areas:-

1. Stress Testing

- ***Absence of proper stress testing for its own or clients' exposure on HKEX's products, particularly on non-linear products such as options.***

Stress testing of non-linear products (e.g. options) is crucial to CPs since the losses of non-linear products increase exponentially under extreme scenarios. CPs with significant activities in non-linear products are expected to implement and conduct stress testing regularly and at least on a weekly basis, to evaluate the potential loss of its portfolio under extreme but plausible market conditions. Proper stress testing policies and procedures should also be established to clearly set out the stress testing methodology, frequency and the review and escalation mechanism.

As a benchmark, the underlying movement adopted by Clearing Houses under extreme but plausible market conditions is ± 20% for index options and ± 22% for stock options.

Further information on stress testing can be found in the Annex.

2. Credit Exposure Management - Monitoring of Position Limit and Late Payment Management

- ***Lack of sufficient and effective monitoring and control on credit exposures***

Client limits (e.g. position limit, credit limit, trading limit and/or limits granted to DvP clients in stock trading to settle on T+2) are imposed by CPs on their clients for controlling their credit exposure. It was noted that while CPs had set up limits for their clients, had not implemented any system to monitor their clients' positions against limits assigned to such clients and/or had allowed clients to transact based on their clients' available funds instead. Policies and procedures in relation to the treatment of outstanding loan payments were also found to be

[1] (i) Clearing Participants and General Clearing Participants of HKFE Clearing Corporation Limited, and (ii) Direct Clearing Participants and General Clearing Participants of Hong Kong Securities Clearing Company Limited and The SEHK Options Clearing House Limited

inadequate where follow-up, escalation and provisioning / write-off of such loans were not clearly set out. It was also noted that client limits, once granted, were not subject to regular review.

CPs are reminded to implement appropriate and adequate monitoring arrangements in this regard, including but not limited to inputting the limits assigned to clients into the system for continuous monitoring. Failure to implement appropriate and adequate monitoring arrangements may result in regulatory breaches, which could be grounds for disciplinary actions.

3. Notification of Change in Operations and Risk Control Plan

- ***Failure to notify the Clearing Houses when there is a change in operations and risk control, including but not limited to changes arising from engaging in new business activities***

According to the admission material (Note 2 of Attachment 2 of the "*Explanatory Notes for applications for Participantship and Trading Right*") and the responsibilities set out under CCASS Rule 1703(iii), HKCC Rule 214(n) or SEOCH Rule 403(17), CPs are required to submit to the Clearing Houses any change in the details supplied to the respective Clearing Houses at the time of admission and thereafter including, among other things, updated risk and control documents when engaging in new business activities such as proprietary trading and margin financing.

4. Controls on Managing Defective Securities Risk associated with Deposit of Physical Certificates

- ***Absence of proper control measures that can effectively limit the risks or losses arising from defective securities***

CPs are responsible for defective securities they deposited into the CCASS Depository and their responsibilities are set out under Section 7.2.2 of CCASS Operational Procedures. Proper measures should be implemented on managing defective securities risk, which may include the following:

(i) procedures in place to put on hold the shares from utilization (e.g. for settlement of short positions) until re-registration into the name of HKSCC Nominees Limited is completed (i.e. when the share registrar has confirmed the validity and good title of the participant's physical certificates);

(ii) withhold the sales proceeds from its selling clients until completion of re-registration of the physical certificates; or

(iii) other measure(s) to manage the risk involved in utilizing shares with immediate credit given before physical certificates are confirmed to be good and valid.

5. Control, Monitoring and Staff Training in relation to the Fulfillment of Settlement Obligations

- ***Inadequate monitoring and controls over Settlement Operations for ensuring the timely completion of steps essential to fulfill the settlement obligation of the Clearing Houses***

CPs should put in place adequate and comprehensive internal controls and procedures governing the settlement process; and all relevant officers should strictly follow the prescribed timeline to facilitate smooth operation, especially for backup or holiday covers. Examples of effective tools for settlement controls include: a checklist with maker-checker signoff over key settlement steps (with timelines clearly set out for each step); or a system dashboard to monitor the timeliness in completing each key settlement steps with automatic escalation / alerts. For each key settlement task, sufficient buffer time should be allocated between the internal completion timeline and the Clearing Houses' settlement timeline, in order to allow exception handling process (e.g. additional transfer of funds) to be completed before the Clearing Houses' settlement timeline.

CPs are advised that the review of funding sufficiency at market close should be based on the actual position data or settlement reports disseminated by Clearing Houses. By relying on internal position data (instead of Clearing Houses' date/report) during the funding forecast/arrangement process, CPs may fail to capture errors caused by internal system or manual process e.g. incorrect/incomplete positions net-down in HKCC/SEOCH. This would lead to an incorrect forecast of the settlement amount and may result in payment failure.

CPs are also advised to strengthen its operational and funding backup arrangements, including but not limited to (1) holiday backup arrangement of settlement and accounting officers; (2) enabling money transfer through e-banking between house / client accounts and CPs' designated account for settlement and (3) setting up overdraft facilities to provide contingency funding (including non-HKD settlement currency, e.g. CNY for China Connect Participants).

CPs should keep abreast of circulars issued by the Clearing Houses and conduct regular reviews on their operation procedures to ensure compliance with the relevant rules and requirements at all times. Among other things, CPs should ensure that their settlement arrangements (including arrangements during holiday periods) comply with the latest requirements stipulated by the Clearing Houses.

CPs should ensure that their staffs (including their backup and holiday cover) have adequate and up-to-date knowledge on operational risk and control, payment obligations and the consequences of failure in meeting the obligations of the Clearing Houses. CPs should arrange for staff to attend training courses, such as the one mentioned in the circular *"Training course jointly organized by HKEX and HKSI Institute"* issued by the Clearing Houses on 31 December 2018 (Ref. No. CD/CDCRM/243/2018) and make reference to circulars such as *"Reminder on Payment Obligations of Clearing Participants"* issued by the Clearing Houses on 7 February 2020 (Ref. No. CD/CDCRM/034/2020, CD/CDCRM/035/2020 and CD/CDCRM/036/2020) to enhance the staff's awareness on payment obligations of the Clearing Houses.

6. Risk Governance, Operational Capability and Risk Culture

- ***Inadequate control in relation to risk management governance***

A proper risk governance framework usually involves establishment of a risk management committee for exercising senior management oversight over key risk areas. In some instances, CPs did not keep proper meeting records/reports to show that a committee meeting has been conducted or the focus items discussed by senior management at the meeting.

CPs should establish a proper risk governance framework (e.g. by setting up a risk management committee with regular meetings) and maintain documentation to demonstrate senior management's oversight of issues and to keep track of their discussion and monitoring over key risk areas, in particular, on the treatment of credit risk, concentration risk and monitoring of sufficiency of liquid capital.

CPs should also establish detailed policies and procedures to effectively manage the key risks. In this connection, the Appendix 2 of the *"Explanatory Notes for Application for Participantship and Trading Right"* can serve as a reference of the Clearing House's latest expectation on a CP's risk management practices.

7. Business Continuity Plan and Contingency Funding Arrangement

- ***Inadequate arrangement in place to ensure its fulfillment of the Clearing Houses' settlement obligations under contingent situation***

To cope with disruptions that may impair CPs' ability to meet settlement obligations with the Clearing Houses, CPs should develop and maintain a business continuity plan, which should clearly set out the actions that the firm would take during contingent scenarios.