

Hong Kong Securities Clearing Company Limited

FSB Continuity of Access to FMIs for Firms in
Resolution



PART I: LEGAL ENTITY AND GENERAL CONTRACT/SERVICE INFORMATION

1 Please provide the following details:

a) Full Legal Name

Hong Kong Securities Clearing Company Limited (HKSCC)

b) Legal Entity Identification Number (LEI)

213800NM8ZN1F16ARD34

c) Jurisdiction of incorporation and registered number in the relevant corporate registry

Hong Kong Company Registration Number: 251622

d) Supervisory, resolution or other relevant regulatory authority responsible for overseeing the activities of your organisation in (i) the relevant jurisdiction(s) of incorporation, and (ii) if different from the jurisdiction of incorporation, the relevant jurisdiction(s) of operation. Where an FMI is overseen by more than one regulatory authority, please also indicate which is the principal/home regulator of the FMI and the relevant function(s) regulated by the respective authorities.

The Securities and Futures Commission in Hong Kong (SFC) and the European Securities and Markets Authority in Europe, where the Financial Market Infrastructure (FMI) is registered as a third-country Central Counterparty (CCP).

e) The ownership arrangement of the legal entity (e.g. is it majority owned by its users?)

100% wholly owned by Hong Kong Exchanges and Clearing Limited (HKEX).

2 Please provide the following information:

- a) Hyperlink to the published FMI disclosure template under the Disclosure Framework for Financial Market Infrastructures.

https://www.hkex.com.hk/Services/Clearing/Securities/PFMI?sc_lang=en

- b) a list or description of services provided, including a summary of the key ongoing access requirements that you require of members for each service (including operational, financial, and capital requirements).

(i) Service overview

The FMI, as a CCP, Securities Settlement System (SSS) operator, and Central Securities Depository (CSD), has primary operational objectives to provide via the Central Clearing and Settlement System (CCASS), its clearing, settlement, depository and nominee services on each business day.

The FMI provides clearing, settlement, depository and nominee services to the securities market in Hong Kong, primarily for securities traded on the Stock Exchange of Hong Kong Limited (SEHK), which is recognised by the SFC as a recognised exchange company. With effect from 17 November 2014, the FMI established CSD and clearing links with the China Securities Depository and Clearing Corporation Limited (ChinaClear) for the provision of clearing, settlement, depository and nominee services for trades executed through Shanghai-Hong Kong Stock Connect (Shanghai Connect). Such links were extended to provide for the clearing, settlement, depository and nominee services for trades executed through Shenzhen-Hong Kong Stock Connect (Shenzhen Connect) with effect from 5 December 2016.

CCASS clearing services determine the stock and money obligations of Clearing Participants (CPs) to a securities transaction to deliver or receive either cash or securities.

CCASS provides settlement services under which securities are credited or debited to CPs' CCASS stock accounts and funds are recorded in the participants' money ledgers on settlement day.

(ii) Participantship requirements

The FMI sets CP admission requirements to ensure that the risk profile of each CP meets the required standard. The FMI requires CPs that are licensed corporations to meet the prescribed minimum capital requirements (HK\$3 million for Direct Clearing Participants (DCPs) and HK\$300 million for General Clearing Participants (GCPs) or its required liquid capital under the Securities and Futures (Financial Resources) Rules (Cap. 571N of the Laws of Hong Kong) (FRR), whichever is the higher). CPs that are registered institutions should have a minimum capital of HK\$390 million.

Currently, licensed corporations and registered institutions under the Securities and Futures Ordinance (SFO) can be admitted as CPs. A DCP must be a licensed corporation while a GCP must be a licensed corporation or a registered institution. Both licensed corporations and registered institutions are regulated by the SFC while registered institutions are also regulated by the Hong Kong Monetary Authority (HKMA). The SFC and HKMA act as front-line regulators to monitor and supervise the CPs who are licensed corporations and registered institutions while the FMI is responsible for monitoring CPs' settlement activities and their compliance with the General Rules of CCASS (CCASS Rules).

During the CP admission review process, the FMI considers the key operational and internal control aspects of the applicant, including the experience of its key personnel and reviews its compliance and risk management policies and systems. Admitted CPs must comply with the continuing obligations set out in the CCASS Rules.

The FMI routinely measures and monitors its current and potential future credit exposures to CPs that are licensed corporations with reference to their monthly financial returns obtained through the SFC. Daily risk scoring analysis is also conducted based on the Counterparty Risk Exposure Scoring Toolkit in which each CP is assessed and assigned a risk score based on five key risk measures including expected uncollateralised loss, open settlement positions, operational weaknesses such as settlement

delays, counterparty leverage and credit rating of the CP. The methodology provides a dynamic and holistic risk management tool to monitor CP's exposure and credit risk more effectively and enhance decision-making on applying additional risk management measures.

- 3 Do your members/clients access your services directly or through an intermediary?

The FMI operates a principal clearing model. Access to clearing services is exclusively through a CP.

The FMI only recognises the rights of its direct participants. Clients who are not direct participants must access the FMI's services through an intermediary who is a direct participant.

- 4 Do your members/clients need a specific software or IT programme to receive your services? If the answer is 'yes', is such software/IT programme your proprietary product or a specific third party product (please also consider whether specific plug-ins that you require clients to run only run in combination with certain software, e.g. Microsoft products)?

Yes. CPs are required to use CCASS, client portal (namely Client Connect) and HKSCC Internet Report Access Platform to receive services provided by the FMI.

- 5 If your contracts are all governed by one governing law, please specify which governing law this is. If there are different governing laws, please specify the main governing laws applicable and explain whether this is dependent on the location of the services provided or as negotiated with the members/client, or any other reason.

Hong Kong Law, provided that, in the case of a China Connect Securities Trade, the Market Contract between HKSCC and the relevant China Connect Clearing Participant is created on the same terms as the rights and obligations created pursuant to the rules of the relevant China Connect Clearing House – see CCASS Rule 4106.

- 6 Are there any other service providers or FMIs (for example, CSDs, payment systems or other infrastructure) that a member/client would need to have access

to in order to receive your services? Please provide the names of those types of service providers and their regulatory status, where applicable.

Yes, CPs are required to access CCASS for both Southbound and Northbound trades (even for ChinaClear) via the Securities and Derivatives Network (i.e. SDNet/2) which is an integrated Optical Ethernet network infrastructure for supporting the securities trading, clearing, settlement and market data services of the FMI. Also, CP must at least maintain a general purpose bank account with the FMI's designated banks, which are licensed bank or restricted licensed bank under the Hong Kong Banking Ordinance, for money settlement purpose.

- 7 Does your operating framework recognise the continued operations of FMI participants once they enter into resolution (e.g. as under the Bank of England's Resolvability Assessment Framework, or the Single Resolution Board's Expectations for Banks)?

This has yet to be assessed.

PART II: RULEBOOK/CONTRACTUAL PROVISIONS REGARDING TERMINATION

8 Discretionary termination rights.

- a) Rule Book/Participation agreement provisions: which provisions give rise to a right to terminate a service user's access? Are the FMI's termination provisions disclosed publicly? If so, please provide any link(s) to that information.

Chapter 22 of the CCASS Rules, publicly available on the HKEX website at https://www.hkex.com.hk/Services/Rules-and-Forms-and-Fees/Rules/HKSCC/Rules?sc_lang=en.

- b) Are these provisions based solely on objective criteria, or can the FMI exercise judgement when triggering termination?

The FMI can exercise judgement when triggering termination in respect of some of the events set out in CCASS Rule 2202 – see response to question 8f below.

- c) Does the FMI use 'forward looking' indicators that may trigger termination, and if so, which ones?

Pursuant to CCASS Rule 2202 (iv) in the event of the bankruptcy, liquidation or winding-up of a CP or the initiation of any proceedings in relation thereto (including, but not limited to, the commission of an act of bankruptcy or an analogous act by a CP) or if the FMI considers in its absolute discretion that the occurrence of such events are imminent or likely; and (v) in the event of the appointment of a receiver or manager over the assets of a CP or if a CP suffers a composition with its creditors or if a scheme of arrangement is approved by the court (other than for the purposes of reconstruction or amalgamation) or if the FMI considers in its absolute discretion that the occurrence of such events are imminent or likely.

- d) Do the FMI's provisions envisage that (i) financial stress on the participant's side (as defined in its provisions – please provide the definition of such

stress) and/or (ii) a resolution event (recognised in the relevant jurisdiction) qualifies as a material change that may trigger termination?

The conditions prescribed in CCASS Rules 3701 and 2202 address the circumstances that may trigger termination: where a CP is in (i) material breach of the rules or terms of membership of any exchange, trading platform or clearing house, (ii) has been declared a defaulter or (iii) suspended or expelled from membership.

In the circumstance that a CP is experiencing financial stress but is still able to fulfil settlement and delivery obligations, the FMI may assess the credit quality of the CP and decide whether to impose additional risk measures to ease the additional risk concern. The risk measures include suspension or termination of membership.

- e) During stress or resolution of the member, are actions by other FMIs taken into account as possible indicators or triggers for termination?

See response to question 32 below.

- f) Are there any other relevant provisions regarding termination? If so, please explain why they are necessary for the FMI to enable rights for termination.

CCASS Rules 2202(iv), (v), (vii) and (viii).

Upon the occurrence of these material events, it is likely that the CP is either already insolvent or an insolvency is imminent. To preserve the stability of the central clearing framework, prompt action such as closing out any market exposure to mitigate loss is likely required.

9 Suspension or restriction of membership.

- a) Does your framework allow for suspension or restriction of a participant's membership rather than termination? If yes, what exactly does this imply (for instance, limiting the right to enter new transactions in the system)? Please explain any differences to termination.

Yes. CCASS Rule 2003.

Disciplinary actions may include suspension of the CP from CCASS so no new transactions may be entered into or a limit may be placed on the CP's clearing activities. Disciplinary actions are typically used for less severe events affecting a CP and any suspension/restriction imposed may be lifted once the default is cured.

- b) Is there a specific timeline for a suspension period before it leads to termination of membership, and are there circumstances where suspension may be lifted without a termination of membership?

No. The FMI retains full discretion.

10 Critical FMI service rules, contractual arrangements, or procedures should reflect any legal restrictions on termination and suspension of access because of an FMI service user entering into resolution (FSB 2017 Guidance, 1.1).

- a) In what way do your rules, contractual arrangements and procedures reflect this?

No contractual provisions exist in the FMI's rules that impose legal restrictions on termination and suspension of access because of a CP entering into resolution, but the FMI will take any legal restrictions on termination and suspension of access because a CP is entering into resolution when exercising its discretion to trigger any disciplinary or default proceedings against such CP.

The FMI retains the right¹ to terminate a CP's participation if it determines that:

(i) the bankruptcy, liquidation, winding-up or other analogous act affecting a CP is imminent or likely;

(ii) the appointment of a receiver or manager over the assets of a CP is imminent or likely; or

(iii) if the FMI considers in its absolute discretion that any delay in the termination of the participation of a CP will be materially detrimental to the interests of the FMI or of other CPs.

- b) Do such arrangements include the effect of parent or affiliates entering resolution?

No contractual provisions exist in the FMI's rules that impose legal restrictions on termination and suspension of access in the event that a parent or an affiliate of a CP is entering into resolution.

The FMI retains the right² to terminate a CP's participation in the event that the effect of its parent or affiliate entering resolution is that:

(i) the bankruptcy, liquidation, winding-up or other analogous act affecting the CP is imminent or likely,

(ii) the appointment of a receiver or manager over the assets of a CP is imminent or likely; or

(iii) if the FMI considers in its absolute discretion that any delay in the termination of the participation of a CP will be materially detrimental to the interests of the FMI or of other CPs.

¹ CCASS Rule 2202

² CCASS Rule 2202

- c) Do you have any plans to amend or otherwise change, or have you recently changed your rules, contractual arrangements or procedures to address legal restrictions on termination of access in the event that an FMI service user enters resolution? If so, please provide details of the proposed/applied changes.

This has yet to be assessed.

11 Triggers, procedure and consequences of termination of FMI participation.

- a) Triggers: in which situations would termination be considered? Is participation/membership generally terminated in case of financial stress? Are these criteria clearly outlined in the rulebook or other contractual documentation (please include the relevant references)?

CPs whose creditworthiness deteriorates below a certain level of credit risk tolerance will be subject to additional measures to ease the additional risk concern. Risk measures may be recommended to suspend or terminate membership. See response to questions 14-17 for details of the risk measures.

However, if a CP failed to settle its obligations to the FMI or fails to fulfil minimum capital requirement of the FMI, it would constitute an Event of Default (CCASS Rule 3701) which may trigger the FMI to terminate the participation in CCASS (CCASS Rule 2202(vii)).

- b) Please explain the management and monitoring around the termination process - steps and timelines of the escalation and decision-making, as well as of the implementation of termination. (Please provide concrete examples, if any, of participation/membership terminations and flag, where relevant, any changes made to the termination process since).

Once the situation is flagged/identified, the case will be discussed among the FMI management team. If the recommendation is to terminate participation, the case would be further escalated internally to seek approval from the FMI's Board.

To implement the termination, the FMI will issue notice to the CP. Pursuant to CCASS Rule 2201, the FMI will give not less than ten business days' notice in writing terminate the CP in HKSCC. During such period, the terminating CP's trading activities will be monitored. The HKEX Credit teams may decide to apply risk reduction trades only restriction or withdraw any credit tolerance to such terminating CPs.

- c) What are the consequences of termination on the participant/member's ability to access the FMI's services? Would the firm be able to complete the processing of any outstanding transactions (e.g. not accepted for clearing or settlement, or in process but not complete) it has in the FMI's systems, or are these cancelled or liquidated?

Pursuant to CCASS Rule 2204, the termination of participation in CCASS of a CP will not affect any rights of the FMI or liabilities of the CP arising out of matters which have taken place prior thereto and for the purpose of settlement of any such rights or liabilities of the CP. In addition, if a CP's participation in CCASS is terminated, such CP would be restricted from performing some activities. For example, clearing any new trades will be prohibited.

For the avoidance of doubt, such CP would be required to complete or cancel the processing of any outstanding transactions existing in the FMI system prior to effecting the termination of participation in CCASS. All actions in the FMI system would be subject to the FMI's approval during that period.

- d) Would the decision to terminate participation/membership be notified ex ante (i.e. before it takes effect) to the competent authorities of (i) the direct participant and/or of (ii) the FMI? Would this decision be communicated ex ante to the participant itself? On both aspects, how long in advance of actual termination would such notifications occur?

Pursuant to CCASS Rule 2205, in the event of the termination of participation by such CP or the receipt of notification to terminate, the FMI shall as soon as practicable (i.e. ex-ante if possible) notify the other CPs, the regulator and the SEHK.

- e) What impact would a participant/member's termination have on their parent/subsidiaries' direct membership in the FMI?

The FMI operates a principal clearing model and only recognises the rights of its direct participants. If the participation of a participant is terminated, any outstanding positions of its parent/subsidiaries will be closed out.

- f) Does the FMI have cross-default provisions in its rule set? Could it put a member in default because of an affiliate's insolvency or of an indirect participant/client's default or do the rules explicitly prevent or exclude such automatic termination (as long as other obligations are being met)?

Yes. See CCASS Rules 3701(iv), (v) and (xiii).

- g) What assistance would the FMI provide with the porting (within the FMI) of the participant's direct and/or indirect positions/outstanding transactions to a parent/subsidiary membership, third party successor or bridge entity?

The FMI does not intervene in the position transfer process between CPs in the clearing system (which facilitates porting of positions in an event of participant default) as it is largely initiated and managed by CPs.

- h) Please discuss any other points related to termination.

See response to questions 11a-11e.

- 12 FMI should retain the ability, as specified in rules or contractual arrangements, to terminate, suspend or restrict participation or continued provision of services where the firm fails to meet obligations or where safe and orderly FMI operations could be compromised (FSB 2017 Guidance, 1.1).

- a) Under what conditions, if any, could safe and orderly FMI operations be at risk from maintaining participation of a service user in resolution?

The FMI has the absolute discretion to terminate the participation of a CP if any delay in its termination will be materially detrimental to the interests of CCASS or other participants.

See CCASS Rule 2202 (viii).

If a CP in resolution is unable to contribute or replenish default fund or default fund assessment, this could put FMI at risk from maintaining participation of such CP.

- b) Which indicators, if any, can a participant use to anticipate that such a scenario may occur?

See response to question 15 below.

- 13 Are there any further aspects or issues to mention in relation to the provisions for termination or suspension of membership? If possible, please provide concrete examples of specific factors that were considered in the past when assessing whether to exercise judgement to terminate or suspend a participant's access. Please elaborate.

Where the FMI feels it is able to avoid the use of its default and/or suspension powers for minor or short term breaches of its rules it may use discretion. The most obvious use of this discretion is where an operational issue results in a delay to the payment of a margin call. While the issue is escalated and monitored closely, provided that the FMI is confident that the issue is simply operational in nature and will be resolved in a short space of time, the FMI is able to waive the need to take steps to default the CP. However, post event, the FMI would follow up with the CP to ensure any lessons learned are implemented to limit future incidents.

PART III: PRIOR TO RESOLUTION, DURING SIGNS OF DISTRESS AT THE PARTICIPANT

The questions in this section assume a situation of stress, in which one of the FMI's (direct) participants/members, or an affiliate company, exhibits signs of distress. Please distinguish in case there are differences between situations of idiosyncratic vs. market stress.

To avoid duplication, respondents may cross-reference other answers when appropriate.

- 14 What management and monitoring process(es) does the FMI have in place to identify a situation of stress of a (direct) FMI participant or its affiliate?

Credit assessments are conducted on a regular basis using the financials reported, qualitative risk factors, trend of the business and industry and peer comparisons on CPs to identify credit deteriorations.

Early warning market indicators such as Credit Default Swaps/share prices/adverse news/rating agency changes, are monitored daily to identify early signs of credit deterioration. Any credit deterioration identified will be investigated with the CP and escalated to senior management, risk measures may be applied.

- 15 Which indicators does the FMI consider as part of its management and monitoring in order to determine whether its participants/members face difficulties due to idiosyncratic and/or market stress (outside of entry into resolution)?

The CP's financial results and market indicators such as Credit Default Swaps/share prices/adverse news/rating agency changes are closely monitored to determine if the CP faces difficulties due to idiosyncratic or market stress.

- 16 What risk mitigation actions could the FMI take under its rules/internal procedures vis-à-vis the participant or member? Which of those potential actions are likely, i.e. to be expected by the firm? How would risk mitigation vary in the event of mild, moderate, and severe stress situations at a participant/member? Could actions be taken even though the participant/member meets its obligations?

The severity of the situation would be reflected in the level of the credit rating. Even if a CP meets its obligation and whose creditworthiness deteriorates below a certain level of internal credit rating will be subject to additional measures to ease

the additional risk concern. Risk measures include, but not limited to, credit limit reduction, more frequent financial monitoring, additional collateral, position limit reduction, suspension of membership and termination.

- 17 What self-reporting requirements are placed on the member/participant in a situation of stress (e.g. additional reporting, increased reporting frequency; evidence of operational and financial capacity)? Please provide any templates or overviews of required data points, where available.

In a situation of stress of the CP, in the first instance the FMI would speak to the CP to determine the reasons and impact of the stress. Also see the response in question 21a below.

CPs may be required to provide more frequent financial status reporting (from monthly to weekly or even daily) to assess their latest risk profile against their exposure. The information may be specific to the underlying issue; for instance, an approximation of risk exposure against volatility in another asset class in which they have material exposure, or detailed analysis of their liquidity position including the status of liquidity facilities and results of stress testing. Due to this nature, there are no specific templates of data required available as each situation has to be judged on its merits and the business model of the CP concerned.

- 18 Please explain the methodology used to calibrate additional membership requirements (including operational, financial and capital requirements) for a member/client in financial stress outside of resolution.

Internal credit rating methodology uses a combination of quantitative and qualitative measures to attain the credit score of the CP, which includes capital, liquidity, profitability ratios and operational efficiency. The internal credit rating will drive the level of risk measures.

Daily monitoring, reporting and review processes are in place to ensure that the internal credit ratings of all CPs are appropriately managed on an on-going basis.

- 19 Please describe for each of the below risk mitigation actions, in as far as they form part of the FMI's set of potential risk mitigation actions: (i) whether these actions are discretionary or pre-determined, e.g., would the FMI follow a required set of actions, which may be described in its rule book; (ii) in which way, if at all, the FMI

could deviate from the predetermined procedure so as to either disregard a mandated risk mitigation action or adopt a non-standard action?

- i. Increasing membership contributions (e.g. default fund/loss sharing contributions), mandating pre-funding, restricting withdrawal of deposits;
- ii. Increasing initial/variation margin/collateral requirements, restricting collateral types, removing cross-margining facilities; increasing liquidity obligations;
- iii. Removing credit lines, reliance on parental guarantees or securities borrowing facilities;
- iv. Enforcing trading controls including position limits, restricting markets;
- v. Termination or suspension of participation/membership.

The order in which the tools are used and the specific approach will be dependent on the underlying situation but HKEX has the discretion to operate within the CCASS Rules.

Each CP is assigned an internal rating based on the risk metrics. Governed by the FMI's risk procedures, risk measures (i – v) may be applied to CPs with credit ratings below certain levels.

- 20 Please answer question 19 also for other risk mitigation actions, if any, that are not mentioned here and would likely be taken.

Question 19 covers the material risk mitigation action we are able to undertake.

- 21 In a situation of idiosyncratic or market stress, in which one of the FMI's (direct) participants/members, or an affiliate company, exhibits signs of distress, communications and notifications may be necessary. Please distinguish in the below in case there are differences between a situation of idiosyncratic vs. market stress.
- a) What notifications or communications would the FMI undertake to the participant/member, their competent and/or resolution authority, the FMI's competent and/or resolution authority, the stressed firm's settlement agent,

and other stakeholders, and when? Would any of these be based on an obligation for the FMI to notify?

The FMI has established Market Contingency Plans (MCPs) which address disruptive financial event scenarios such as extreme market movements.

The FMI has established a communication protocol in its market contingency plan which sets out escalation and reporting procedures with various stakeholders, including the HKEX Board, Risk Management Committee, the FMI's Board, regulators, CPs, linked FMIs, third-party service providers and market participants, where appropriate.

- b) Do you have a specific communication plan for this, or does your approach leverage existing crisis communication mechanisms? In both cases, please describe the main features of the approach.

See response to question 21a.

- c) Does the FMI need to get consent from the firm or inform the firm prior to a notification or communication?

The FMI has the discretion to publish participant circulars if matters concerning CPs are implicated.

- d) Do the communication/notification protocols require specific factors to be considered, for example legal implication, market impact, etc.?

In discharging its statutory duties as a Recognised Clearing House (RCH), the FMI is under an obligation to act in the interest of the public, having particular regard to the interest of the investing public. External communication would consider legal implications, confidentiality and sensitivity of the information with a view to maintain market orderliness and avoid disclosure of price sensitive information. The disclosure may be discussed with the regulator prior to its release.

In a situation of stress of the CP, in the first instance, the FMI would speak to the CP to determine the reasons and impact of the stress.

- e) Are your communication protocols standardised across participants or do they take into account the specificities of firms' participation and roles in respect of the FMI?

Communication protocols are standardised across CPs.

22 Alleviating uncertainty for the FMI.

- a) Which actions could the firm or the relevant authorities take in order to alleviate uncertainty for the FMI, and reduce the risk that the FMI may take risk mitigation actions that may have an adverse financial impact on the firm?

The FMI expects the following actions would alleviate uncertainty for the FMI:

- *The firm should be well aware of its membership requirements (e.g., liquid capital requirements) in order to maintain its continued access. In case the firm fails to comply with the requirements, the firm's membership could be suspended or revoked at the discretion of the FMI.*
- *Advanced notification to the FMI on any additional funding requirements the firm needs to meet (e.g., regulatory fine) that may potentially impact its ability to meet its payment/settlement obligations to the FMI.*
- *The firm should notify the FMI in advance of any sources of viable funding that would maintain the continuity of its core business functions. This is additional information that the FMI would use to re-assess the risk mitigation actions on the firm.*

- b) Which data/quantitative information and what qualitative information might you need to receive from the participant and/or RA in order to allow the participant to maintain access (please consider the three levels of access mentioned in footnote 3)? Please specify by when you would need each piece of information, if appropriate.

The FMI would seek confirmation of the amount of funding and securities on hand of the CP in resolution, or the secured resolution resources prior to the

occurrence of its default (if the concerned CP fails to meet its payment and/or delivery obligations and is declared a defaulter).

- c) What other actions could be taken ex-ante to avoid a temporary interruption of services or the risk of some transactions remaining unexecuted?

See response to question 22a above.

- d) Please discuss any other considerations.

See response to question 22a above.

- 23 Considering adverse financial impact of FMI risk mitigation actions on direct/indirect participants.

- a) Some actions, designed to protect the FMI, may precipitate the failure of the relevant participant/member or worsen its position at the time of resolution. How does the FMI consider this when deciding to protect itself?

The FMI will consider the potential market impact when deciding risk mitigation measures and default management actions.

- b) Does the FMI take into account the impact on indirect participants of actions taken in response to a direct participant/member facing financial stress?

Yes, the FMI would account for the impact on indirect participants.

- 24 Possible differences in treatment of domestic and foreign FMI service users entering into resolution.

- a) Do you differentiate in your treatment of domestic and foreign FMI service users, and if so in what way?

The FMI will need to consider if there are any legal or other ramifications of exercising its discretion under its rules to declare an event of default on the participant and terminate access, in particular, whether such termination right would be subject to challenge for breach of law/public policy in a foreign jurisdiction where the FMI service user is incorporated.

- b) Among foreign users, is there a distinction for users from certain jurisdictions? If so, what are those distinctions?

This has yet to be assessed.

25 Safeguards in jurisdictional legal frameworks.

- a) How do you assess whether the resolution framework of the jurisdiction in which a firm resides provides adequate safeguards to the provider of critical FMI services?

This has yet to be assessed.

- b) From which regulatory regimes (e.g. countries) do you accept service users?

Hong Kong, the United Kingdom, the United States, Australia, Germany and France.

- 26 Are there any further aspects or issues to mention in relation to interaction between the FMI and a participant in financial stress? Do you have any examples of past experiences where the FMI has utilised its powers in relation to a member undergoing stress? What actions were undertaken and what were the outcomes? Could this example be indicative of actions that may be taken in a future case?

The FMI utilised its powers under the CCASS Rules to handle the default of Lehman Brothers Securities Asia Limited in September 2008 (see HKEX 2008 Annual Report, p. 59).

PART IV: DURING AND AFTER RESOLUTION

To avoid duplication, respondents may cross-reference other answers when appropriate.

- 27 When the FMI becomes aware of a participant entering a resolution process, which actions would the FMI be likely to take vis-à-vis the participant? Could actions be taken even though the participant/member meets its obligations?

The FMI would attempt to limit as far as possible the actions required to be taken in relation to a firm entering resolution. So if the firm is able to continue meeting its obligations, the FMI would attempt to continue a Business-As-Usual (BAU) relationship, combined with undertaking heightened monitoring and requesting regular and open communication with the entity or resolution authorities. Depending on the resolution plan, the FMI may work with the firm to undertake potential risk reducing activities, if it helps to enhance the overall survivability of the firm.

- 28 Please explain the methodology used to calibrate additional membership requirements (including operational, financial and capital requirements) for a member/client in resolution. To what extent does the FMI take into account the resolution strategy and tools applied to a member to determine their financial and operational requirements? Does the FMI consider anything specific in its methodology in relation to ring-fenced or specifically safeguarded entities?

Further credit deterioration identified will be investigated with the CP and escalated to HKEX senior management. Moreover, further additional risk measures may be applied. See the methodology set out in the response in question 19.

- 29 Please describe for each of the below risk mitigation actions, in as far as they form part of the FMI's set of risk mitigation actions upon a participant entering a resolution process (in addition to actions that would be taken prior to resolution): (i) whether these actions are discretionary or pre-determined, e.g., would the FMI follow a required set of actions, which may be described in its rule book; (ii) in which way, if at all, the FMI could deviate from the predetermined procedure so as to either disregard a mandated risk mitigation action or adopt a non-standard action; (iii) how/when the following risk mitigation actions would be communicated to the participant.

- i. Temporary suspension of certain activities (and if so, which activities);
- ii. Potential requirements to contribute additional margin or amounts to default or guarantee funds, secure additional liquidity commitments (including on an intra-day basis), or to pre-fund part or all of payment and settlement obligations;
- iii. Potential changes to operational or information requirements, including those needed because certain services might not be available;
- iv. Potential requirements that may apply in relation to a bridge institution or third party purchaser to which functions have been transferred.

The actions are always discretionary and may not be applied definitely, provided that sufficient assurances are obtained and obligations are met. Increased communication and information would need to form the basis of a relationship while in resolution.

- 30 Please answer question 29 also for other risk mitigation actions, if any, that are not mentioned here and that would likely be taken.

Not applicable.

- 31 In what way should a service user prepare for resolution-related risk mitigation measures by the FMI to maximise the likelihood of maintaining access? Does the FMI provide any documented guidance on this to its participants/members, and/or to their RAs?

Broadly, a CP should prepare to continue to meet its obligations under the CCASS Rules and where this may be challenging, the CP is recommended to provide open and transparent dialogue on delays and indicate how long a mitigation will take to implement. The obligations are laid out in the CCASS Rules.

- 32 What impact would a member/participant's resolution have on any parent or subsidiary's direct membership at the FMI?

The credit standing of the affiliate CP would determine the FMI's approach to them. However, the fact that a CP of the Group was in such a position to require resolution would suggest broader financial difficulties that may require appropriate action.

- 33 In a situation of idiosyncratic or market stress in which one of the FMI's (direct) participants/members, or an affiliate company, enters resolution, communications and notifications may be necessary. Please distinguish in the below in case there are differences between a situation of idiosyncratic vs. market stress.

- a) What notifications or communications would the FMI undertake to the participant/member, their competent and/or resolution authority, the FMI's competent and/or resolution authority, the firm's settlement agent, and other stakeholders, and when? Would any of these be based on an obligation for the FMI to notify?

See response to question 21a above.

- b) Do you have a specific communications plan for this or does your approach leverage existing crisis communication mechanisms?

See response to question 21b above.

- c) Does the FMI need to get consent from the firm or inform the firm prior to a notification or communication?

See response to question 21c above.

- d) Do the communication/notification protocols require specific factors to be considered, for example legal implication, market impact, etc.?

See response to question 21d above.

- e) Are your communication protocols standardised across participants or do they take into account the specificities of firms' participation and roles in respect of the FMI?

See response to question 21e above.

- f) Would your members/clients be able to leverage any preparations your organisation has undertaken to access the necessary communication infrastructure to deliver the increased extent of communications that may be needed to respond to a resolution and any restructuring of a member/client (such as increased call volumes to call centres)?

This has yet to be assessed.

- g) What management and monitoring arrangements would apply for these crisis communications and notifications? Would you have a dedicated team or a point of contact for receiving and initiating all communications that relate to a member/client entity in resolution or any related restructuring?

Upon occurrence of a market contingency event, HKEX has the discretion to form a crisis management team to centralise and handle crisis communications.

- 34 Alleviating uncertainty for the FMI. (As requested in Part II, if the responses to sub-questions a.-f. below have been documented in rulebook/contractual provisions or other documents, please reference.)

- a) What actions (such as communication) could the participant or authorities take in order to alleviate uncertainty for the FMI about the participant's situation, and thereby reduce the risk that the FMI may take risk mitigation actions that may have a further adverse financial impact on the participant?

See response to question 22a above.

- b) Assuming that the authorities and the affected member/client may not be able to share relevant information before the commencement of the resolution process, would that represent a material issue that could determine how your

organisation responds to the fact that a member/client has been placed in resolution?

The FMI requires timely and relevant information to assess the CP's ability to comply with any conditions and requirements imposed by the FMI for its continued participation in the FMI (refer to CCASS Rule 2001(ii)). The FMI would also assess the impact to the FMI and any knock-on impact to the financial market as a whole and to make a material decision in response to the situation.

- c) Which data/quantitative information would the FMI need to receive from the participant and/or RA in order to allow the participant to maintain access (please consider the three levels of access mentioned in footnote 3)? Please specify by when you would need each piece of information, if appropriate, including when you would need to be informed prior to resolution measures.

See response to question 22b above.

- d) Which qualitative information would the FMI need to receive from the participant and/or RA in order to allow the participant to maintain access to the FMI? Please specify by when you would need each piece of information, if appropriate, including when you would need to be informed prior to resolution measures.

See response to question 22b above.

- e) What other actions could be taken ex-ante to avoid a temporary interruption of services or the risk of some transactions remaining unexecuted?

See response to question 22c above.

- f) Please discuss any other considerations.

No other consideration.

- 35 Considering adverse financial impact of FMI risk mitigation actions on direct/indirect participants.

- a) Some actions, designed to protect the FMI, may worsen the position of the participant at the time of resolution and as a result may also affect other participants. How does the FMI consider this when deciding to protect itself?

See response to question 23a above.

- b) Does the FMI take into account the impact on indirect participants of actions taken in response to a direct participant/member entering into resolution?

See response to question 23b above.

- 36 FMI rules and contractual arrangements should allow a bridge institution to maintain its predecessor's participation (membership) during a resolution process (FSB 2017 Guidance, 1.1). (As requested in Part II, if the responses to the sub-questions below have been documented in rulebook/contractual provisions or other documents, please reference.)

- a) Please explain how the FMI rules, contractual arrangements and/or procedures reflect this.

The FMI's rules and participation agreement currently do not allow an FMI user to unilaterally assign/novate its participation to a bridge institution pursuant to an order of a competent resolution authority. However, the FMI retains the discretion to allow a bridge institution to become a participant by waiving or modifying the requirements and conditions applicable to such applicant if the merits of such participation can be demonstrated.

- b) What would be the FMI's process to ensure that continuity of access can be maintained for the purchaser of a resolved entity or for a bridge institution?

The potential purchaser or bridge institution would be required to meet the membership criteria and meet the continuing obligations stipulated in Chapters 3 and 17 of the CCASS Rules.

- c) Please share any timelines and any external dependencies for this process.

Fulfilling the on-boarding credit assessment, signing of agent bank agreement and trading and clearing system connectivity would be the key dependencies for a bridge institution to set up access.

- d) If the purchaser or bridge institution requires a new access, do you have a “fast-track” procedure to allow access for such a purchaser or bridge institution? How long is setting up access expected to take (with or without a “fast-track” procedure)? What would the FMI require in order to continue providing the service pending completion of the onboarding procedure (e.g. connectivity and BIC/SWIFT codes to remain unchanged)?

No specific “fast-track” procedures are available.

- e) What type of information is needed in the context of a change-of-control assessment, i.e. to accept a purchaser or bridge institution as a participant/member? Please specify by when you would need each piece of information, if appropriate. How long would you then need to take an informed decision on access for the purchaser or bridge institution?

See response to 36g below.

- f) Does the FMI explicitly consider, in its rulebooks or internal procedures, the possibility of a RA requiring access for the purchaser or bridge institution even in case they do not meet the membership or participation criteria (for instance where a credit rating is required)?

The FMI does not have specific provisions in its rulebook allowing a purchaser or bridge institution access to its services in cases where such entity does not meet its membership or participation criteria.

- g) Please discuss any other, e.g. practical, considerations around continuity of FMI access of a bridge institution or of a purchaser.

The FMI intends to assess the merits of such access on a case by case basis upon the occurrence of a resolution event affecting its CPs, having regard to:

1. *the risks affecting enforceability of the material provisions of its rules where the entity requesting such access is not incorporated in Hong Kong or is not appropriately licensed/regulated in Hong Kong;*
2. *any foreign licencing requirements/ongoing obligations which may be triggered by it as a result of granting access and providing clearing services to a foreign entity;*
3. *the creditworthiness and operational ability of the bridge institution/purchaser to comply with the FMI's rules and operational requirements such that it can fulfil all the obligations which it is proposing to undertake; and*
4. *the legal and other ramifications of exercising its discretion to declare an event of default on the participant and terminate access including the value of the participant's collateral balance posted to the FMI and any uncovered loss which the FMI will be forced to bear.*

37 FMI should consider the operational, technological, financial and legal implications arising from the transfer of functions or positions to a successor (either a bridge institution or a third-party purchaser). (FSB 2017 Guidance, 1.4)

- a) What preparations are necessary in your circumstances for such a transfer to be successful? What changes would be necessary for such a transfer to be successful? Please consider any preparations and changes by the FMI as well as by FMI members/service providers/others.

No special preparation is required if the successor is an existing CP.

38 Portability/Transferability of underlying client positions, for example to facilitate a bridge or partial transfer resolution strategy.

- a) For CCPs: Which kind of segregated accounts are offered to (underlying) clients to facilitate the portability/transferability of client positions and securities collateral? Do you envisage that there may be material barriers to the effective and timely transfer of client positions following a decision to transfer the activities of the member in resolution to another member? If so, please explain.

The FMI currently does not offer client account structures.

The Orion Risk Platform's (ORP) (previously referred to as the NextGen Programme) roadmap includes several account structures that will be available depending on the end user's preferences. All ORP components will be developed according to an account hierarchy, catering for House, Omnibus and Individual Segregated Accounts (ISA) accounts.

See HKEX website:

<https://www.hkex.com.hk/-/media/HKEX-Market/Services/Next-Generation-Post-Trade-Programme/NextGen-Overview/Further-Information-on-Next-Generation-Post-Trade-ProgrammeJun2019.pdf?la=en>

- b) For ICSDs: Do you offer segregated accounts to (underlying) clients? Do you envisage that there may be material barriers to the effective and timely transfer of client securities and cash to another custodian following a decision to transfer the activities of the participant in resolution to another participant? If so, please explain.

Not applicable.

- 39 Are there any further aspects or issues to mention in relation to interaction between the FMI and the participant during or after resolution of the participant?

The FMI will provide appropriate communications to the regulator and CPs in accordance with the established communication protocol in the response to question 21a.

PART V: ARRANGEMENTS AND OPERATIONAL PROCESSES TO FACILITATE CONTINUED ACCESS IN RESOLUTION

40 The FMI should consider establishing management, monitoring and operational rules and procedures that facilitate the ability of FMI management to make prompt decisions in response to a service user's resolution (including a period when the FMI is closed for business). (FSB 2017 Guidance, 1.4)

- a) What is the process that the FMI typically follows to identify, escalate, and come to a final decision on issues related to (i) the financial condition of a member, (ii) the performance or lack of performance by a member of its obligations under the FMI's rulebook, and/or (iii) the continuing membership of a member?

The related issues (i.e. (i) (ii) and (iii) listed in this question) will be identified through the daily monitoring process. If concerns are identified, the case will be escalated to the HKEX Credit meeting which may determine mitigation measures for such CP.

- b) What positions, committees, or decision-making bodies in the FMI's organisation have a role in each phase of the identification, escalation, and final decision-making process?

If a CP is in resolution or fails its payment obligations, the risk and post trade departments would assess the situation, impact and decision to declare CP default and escalate the situation to the Default Management Group (DMG). The DMG would make a decision in allowing continuing access in the clearing system to a CP in resolution. Further approval would be required from the Chief Executive of the FMI if suspension of access is recommended.

- c) What procedures are in place to facilitate prompt decision making at any time? What, if any, are the limitations?

In case a CP is in resolution, the FMI may convene a crisis management team to handle the market contingency event or a DMG (in the event the CP defaults on its payment and delivery obligations) may be convened and to approve default management actions.

- d) What would be the likely range of decisions undertaken after receiving notice of a service user entering into resolution? What market communications or notifications to the regulator would be undertaken?

The range of decisions undertaken includes declaration of default, funding arrangement and risk mitigation measures.

If the FMI declares a CP to be in default, the FMI will issue a circular and notification will be distributed to regulators.

- 41 In line with the Key Attributes, FMIs should regularly test the effectiveness of their relevant rules, contractual arrangements and procedures in responding to a resolution scenario of a participant.

- a) How do you test these contingency arrangements? How do you take participants in resolution into account in those contingency arrangements?

Led by the government of Hong Kong (HKSAR Government), HKEX participates in a regular market contingency exercise with the resolution authority, financial market regulators. The exercise focuses on and deals with core events evolving from the initiation of resolution of a bank. Knock-on events would include difficulties in the settlement of securities, futures and options.

Leading up to a resolution of a CP, market events may evolve which would necessitate or trigger risk controls to safeguard clearing and trading processes and market orderliness. The FMI would consider the following when assessing the appropriate actions to be taken:

- If the firm in resolution is a listed company, clarify the reasons for its share price volatility and whether inside information should be disclosed in accordance with the SFO;*
- Consider trading suspension of the firm's stock;*
- If the firm in resolution is a listed company or have derivatives contracts written on the underlying, conduct risk assessment of CPs' material positions;*

- *If the firm in resolution plays a multiple role such as settlement bank, consider the viability of the firm to continue money settlement operations;*
- *Triggering of volatility control mechanism (VCM); and*
- *Consider taking disciplinary action when the CP no longer meets participant requirements or revoke clearing membership upon liquidation or winding-up of a CP.*

HKEX has designed and developed a market contingency plan to address critical market contingency situations that warrant significant internal and external coordination and response and account for interdependencies and links with CPs, other FMI and third-party service providers (e.g. settlement banks). A major incident scenario considers market-wide financial events which simulate extreme market, credit and settlement scenarios (e.g., failure of banks, extreme market movement).

The FMI will also participate in the drills of the linked CCP, ChinaClear.

- b) How do your rules facilitate the transfer of positions of a client of a service user in resolution to another service user of the FMI, as applicable?

The FMI does not offer client clearing services.

Further, in rendering its services, the FMI shall be under no obligation to recognise any right or interest which any person other than a CP may have or claim to have in relation to all matters concerning CCASS or an appointed depositary (including, without limitation, Eligible Securities deposited into CCASS or held by an appointed depositary and transactions to be settled thereunder) and the operation thereof by the FMI – see CCASS Rule 402.

- 42 How do you test members' readiness of arrangements for meeting increased information and communication requests (beyond those required in BAU) that will be needed prior to and during resolution? Which disclosures do you require from members in this regard?

Information and communication requests to the concerned CP would be similar to what would be required from a CP in default. The FMI's existing default management process stipulates the communication and information sharing and is agreed with the regulator.

43 Please describe any simulation exercises the FMI has held with relevance to continuity of access. Please share examples of scenarios covered and whether such scenarios have been inspired by actual crisis events, and clarify the points below:

- a) Key Objectives/how it correlates to a real life scenario;
- b) Frequency;
- c) Involvement of (large) FMI participants and whether any FMI participants have performed a simulation on their side in parallel;
- d) Involvement of authorities: competent authorities of the FMI, competent authorities of participants, and RAs; and
- e) Lessons Learned.

See response to question 41a above.

Post-drill reviews have identified enhancements to communication and business processes. The FMI also runs business continuity drills regularly with relevant stakeholders where applicable and participates in drills of other FMIs and service providers when needed.

44 Are there any further aspects or issues to mention in relation to arrangements and operational processes to facilitate continued access in resolution?

The response to the questions have been drafted to be as comprehensive as possible for the public domain.

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