



FIA Survey of Exchange-Provided Electronic Trading Risk Mitigation Controls

FIA has committed to building a central repository of exchange-provided controls and practices. To do so, this survey has been developed in consultation with FIA members. The survey has been sent to 70+ exchanges globally and the central repository will present, in an exchange-by-exchange format, a view of the answers provided. We believe that the repository will provide a convenient, central source of exchange-provided controls and practices for global brokers, clearing firms and traders, as well as facilitating risk control benchmarking for exchanges.

The survey is in an editable excel format which will allow you to enter and save your responses and when complete to return to us at ExchangeRiskControlsSurvey@fia.org.

As you are completing the survey, should you have any questions or concerns, please contact us at ExchangeRiskControlsSurvey@fia.org.

FIA Privacy Statement <https://www.fia.org/fia-and-ifm-privacy-statement>

Contact Information

1	Exchange Name <i>As you would like it to appear on the FIA website</i>	Hong Kong Exchanges and Clearing Limited
2	Name of person completing the survey <i>First name Last name (i.e John Smith)</i> <i>For FIA internal use only</i>	
3	Email of person completing the survey <i>For FIA internal use only</i>	
4	Name/Department for FIA members to find additional information <i>For FIA internal use only</i>	
5	Email for FIA members to find additional information <i>This will be published on the FIA website</i>	eddykwok@hkex.com.hk
6	Website URL for FIA members to find additional information <i>This will be published on the FIA website</i>	www.hkex.com.hk

Introductory Question

7	Does the Exchange allow direct market access? <i>Check all that apply</i>	
7.a	Direct access for Clearing Members	☒
7.b	Direct access for Traders sponsored by Clearing Members/Sponsoring Firms	☒
7.c	Direct access for any Trader who wants it	☐
7.d	Direct access via a Clearing Member's/Sponsoring Firms infrastructure	☒

Exchange-Provided Risk Management Tools		
The following questions pertain to Exchange-Provided Risk Management Tools Configurable by Clearing Members/Sponsoring Firms and Traders		
8	Does the Exchange make maximum order size limits available to Clearing Members/Sponsoring Firms and Traders, and if so, how can they be set? <i>Check all that apply</i>	
8.a	Not Applicable	☐
8.b	Available to set manually	☒
8.c	Available to set via API	☐
8.d	Is this a mandatory control	☒
9	If mandatory, provide rule citation	HKFE Rule 1208B (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en)
10	Does the Exchange make maximum intraday net position limits available to Clearing Members/Sponsoring Firms and Traders, and if so, how can they be set? <i>Check all that apply</i>	
10.a	Not applicable	☐
10.b	Available to set manually	☒
10.c	Available to set via API	☐
10.d	Is this a mandatory control?	☒
11	If mandatory provide rule citation	HKFE Rule 1205A (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en)
12	Does the Exchange make maximum intraday gross position limits available to Clearing Members/Sponsoring Firms and Traders, and if so, how can they be set? <i>Check all that apply</i>	
12.a	Not applicable	☐
12.b	Available to set manually	☒
12.c	Available to set via API	☐
12.d	Is this a mandatory control	☒
13	If mandatory provide rule citation	HKFE Rule 1205A (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en)
14	Does the Exchange make maximum intraday notional value limits available to Clearing Members/Sponsoring Firms and Traders, and if so, how can they be set? <i>Check all that apply</i>	
14.a	Not applicable	☒
14.b	Available to set manually	☐
14.c	Available to set via API	☐
14.d	Is this a mandatory control?	☐
15	If mandatory provide rule citation	
16	Does the Exchange make maximum intraday margin utilization/buying power limits available to Clearing Members/Sponsoring Firms and Traders, and if so, how can they be set? <i>Check all that apply</i>	
16.a	Not applicable	☐
16.b	Available to set manually	☒
16.c	Available to set via API	☐
16.d	Is this a mandatory control?	☒
17	If mandatory provide rule citation	HKFE Rule 1205A (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en)

18	Does the Exchange make maximum intraday loss available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? <i>Check all that apply</i>	
18.a	Not applicable	☒
18.b	Available to set manually	☐
18.c	Available to set via API	☐
18.d	Is this a mandatory control	☐
19	If mandatory provide rule citation	
20	Does the Exchange make maximum number of open orders available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? <i>Check all that apply</i>	
20.a	Not applicable	☐
20.b	Available to set manually	☒
20.c	Available to set via API	☐
20.d	Is this a mandatory control?	☒
21	21 If mandatory provide rule citation	HKFE Rule 1205A (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en)
22	Does the Exchange make restricted list management available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? <i>Check all that apply</i>	
22.a	Not applicable	☐
22.b	Available to set manually	☒
22.c	Available to set via API	☐
22.d	Is this a mandatory control?	☒
23	If mandatory provide rule citation	HKFE Rule 1205A (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en)
24	Does the Exchange make order/quote volume limits available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? <i>Check all that apply</i>	
24.a	Not applicable	☐
24.b	Available to set manually	☒
24.c	Available to set via API	☐
24.d	Is this a mandatory control?	☒
25	If mandatory provide rule citation	HKFE Rule 1205A (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en)
26	Does the Exchange make user defined price collars available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? <i>Check all that apply</i>	
26.a	Not applicable	☐
26.b	Available to set manually	☒
26.c	Available to set via API	☐
26.d	Is this a mandatory control?	☒
27	If mandatory provide rule citation	HKFE Rule 807A(c) and annual reminder by Participant Circular
28	Does the Exchange make number of outstanding orders/quotes available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? <i>Check all that apply</i>	
28.a	Not applicable	☐
28.b	Available to set manually	☒
28.c	Available to set via API	☐
28.d	Is this a mandatory control?	☒
29	If mandatory provide rule citation	HKFE Rule 1205A (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en)

30	Does the Exchange make outstanding orders/quotes volume limits available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? <i>Check all that apply</i>	
30.a	Not applicable	☐
30.b	Available to set manually	☒
30.c	Available to set via API	☐
30.d	Is this a mandatory control?	☒
31	If mandatory provide rule citation	HKFE Rule 1205A (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en)
32	Does the Exchange make number of messages per time interval available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? <i>Check all that apply</i>	
32.a	Not applicable	☐
32.b	Available to set manually	☒
32.c	Available to set via API	☐
32.d	Is this a mandatory control?	☒
33	If mandatory provide rule citation	HKFE Rule 1205A (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en) and also there is a limitation on the number of transactions per second per trading session ID
34	Does the Exchange make message volume per time interval available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? <i>Check all that apply</i>	
34.a	Not applicable	☐
34.b	Available to set manually	☒
34.c	Available to set via API	☐
34.d	Is this a mandatory control?	☒
35	If mandatory provide rule citation	Execution Throttle as a PTRM control pursuant to HKFE Rule 1205A (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en)
36	Are there any other pre-trade risk control tools that the Exchange makes available to Clearing Members/Sponsoring Firms and Traders, and if so, how can they be set?	Set through PTRM interface: 1) Maximum order sizes for combination orders to specify the max order size for combination orders like calendar spreads 2) Maximum block trade size to specify the max size for each block trade reporting to the derivatives market. On trading APIs and the exchange provided application, 1) Market Maker Protection limits for protection of over trading per a user-defined time period. All quotes on a product by a Market Maker ("MM") will be canceled upon the breach of a preset limit and subsequent quotes by the MM will be rejected 2) Price deviation limits for the trading application provided by the Exchange to members can be set per product per user. At market level, 1) The exchange is providing Dynamic Price Banding as a price deviation control 2) Volatility Control Mechanism to give the market a cooling off period upon a fast and huge move 3) Price limits for specific products in After Hours Trading 4) Trading Halt Mechanism for equity index options products in After Hours Trading.

37	Does the Exchange allow Clearing Members/Sponsoring Firms and Traders to set separate hard and soft limits?	☒ Yes ☐ No
38	If yes, is the setting of separate hard and soft limits mandatory?	☒ Yes ☐ No
39	If mandatory, provide rule citation.	Done through the PTRM interface Pursuant to HKFE Rule 1205A (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en)

40	Does the Exchange make maximum order size limits available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
40.a	Not applicable	☐
40.b	Available to set by asset class	☒
40.c	Available to set by product group	☒
40.d	Available to set by product	☒
40.e	Available to set by spread	☒
40.f	Available to set by expiry	☐
40.g	Other	
41	Does the Exchange make maximum intraday net position limits available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
41.a	Not applicable	☐
41.b	Available to set by asset class	☒
41.c	Available to set by product group	☒
41.d	Available to set by product	☒
41.e	Available to set by spread	☐
41.f	Available to set by expiry	☐
41.g	Other	
42	Does the Exchange make maximum intraday gross position limits available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
42.a	Not applicable	☐
42.b	Available to set by asset class	☒
42.c	Available to set by product group	☒
42.d	Available to set by product	☒
42.e	Available to set by spread	☐
42.f	Available to set by expiry	☐
42.g	Other	
43	Does the Exchange make maximum intraday notional value limits available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
43.a	Not applicable	☒
43.b	Available to set by asset class	☐
43.c	Available to set by product group	☐
43.d	Available to set by product	☐
43.e	Available to set by spread	☐
43.f	Available to set by expiry	☐
43.g	Other	
44	Does the Exchange make maximum intraday margin utilization/buying power limits available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
44.a	Not applicable	☐
44.b	Available to set by asset class	☐
44.c	Available to set by product group	☒
44.d	Available to set by product	☐
44.e	Available to set by spread	☐
44.f	Available to set by expiry	☐
44.g	Other	to set by risk group level

45	Does the Exchange make maximum intraday loss available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
45.a	Not applicable	☒
45.b	Available to set by asset class	☐
45.c	Available to set by product group	☐
45.d	Available to set by product	☐
45.e	Available to set by spread	☐
45.f	Available to set by expiry	☐
45.g	Other	
46	Does the Exchange make maximum number of open orders available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
46.a	Not applicable	☐
46.b	Available to set by asset class	☒
46.c	Available to set by product group	☒
46.d	Available to set by product	☒
46.e	Available to set by spread	☐
46.f	Available to set by expiry	☐
46.g	Other	
47	Does the Exchange make restricted list management available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
47.a	Not applicable	☐
47.b	Available to set by asset class	☒
47.c	Available to set by product group	☒
47.d	Available to set by product	☒
47.e	Available to set by spread	☒
47.f	Available to set by expiry	☐
47.g	Other	
48	Does the Exchange make order/quote volume limits available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
48.a	Not applicable	☐
48.b	Available to set by asset class	☐
48.c	Available to set by product group	☐
48.d	Available to set by product	☐
48.e	Available to set by spread	☐
48.f	Available to set by expiry	☐
48.g	Other	by risk group
49	Does the Exchange make user defined price collars available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
49.a	Not applicable	☐
49.b	Available to set by asset class	☐
49.c	Available to set by product group	☒
49.d	Available to set by product	☒
49.e	Available to set by spread	☒
49.f	Available to set by expiry	☐
49.g	Other	

50	Does the Exchange make number of outstanding orders/quotes available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
50.a	Not applicable	☐
50.b	Available to set by asset class	☒
50.c	Available to set by product group	☒
50.d	Available to set by product	☒
50.e	Available to set by spread	☒
50.f	Available to set by expiry	☐
50.g	Other	
51	Does the Exchange make outstanding order/quote volume limits available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
51.a	Not applicable	☐
51.b	Available to set by asset class	☐
51.c	Available to set by product group	☐
51.d	Available to set by product	☐
51.e	Available to set by spread	☐
51.f	Available to set by expiry	☐
51.g	Other	by risk group
52	Does the Exchange make message volume per time interval available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
52.a	Not applicable	☐
52.b	Available to set by asset class	☐
52.c	Available to set by product group	☐
52.d	Available to set by product	☐
52.e	Available to set by spread	☐
52.f	Available to set by expiry	☐
52.g	Other	by risk group
53	Does the Exchange make number of messages per time interval available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? <i>Check all that apply</i>	
53.a	Not applicable	☐
53.b	Available to set by asset class	☐
53.c	Available to set by product group	☒
53.d	Available to set by product	☐
53.e	Available to set by spread	☐
53.f	Available to set by expiry	☐
53.g	Other	by risk group
54	Are there any other pre-trade risk control tools that the Exchange makes available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set?	
		1) Market Maker Protection limits can be set per derivative underlying level, 2) Price deviation limits can be set at the trading application provided by the Exchange per product.

55	At what user level does the Exchange allow pre-trade risk control tools to be set? <i>Check all that apply</i>	
55.a	Clearing Firm/Sponsoring Firm Default	☒
55.b	Trader Firm	☒
55.c	Trader Account Number	☐
55.d	Trader/User Login	☒
55.e	Trader defined desk/Strategy group	☒
55.h	Other	
56	Does the Exchange have 'clone user' functionality which allows for the copying/mirroring of controls from one Trader, group, firm etc. to another?	☒ Yes ☐ No
57	If yes, does the functionality allow for choosing what components to clone rather than cloning everything?	☐ Yes ☒ No
58	Does the Exchange allow Clearing Member/Sponsoring Firm administrators to raise or lower limits during the trading day?	☒ Yes ☐ No
59	Does the Exchange allow Trader administrators to raise or lower limits during the trading day?	☐ Yes ☒ No
60	Does the Exchange offer post-trade surveillance tools?	☒ Yes ☐ No
61	If yes, which of the following are available? <i>Check all that apply</i>	
61.a	Repeated execution alerts/controls	☐
61.b	Volume per time interval controls	☒
61.c	Other	
62	Does the Exchange offer configurable price tolerance levels?	☒ Yes ☐ No
63	If yes, how is the logic designed? <i>Check all that apply</i>	
63.a	Price Deviation	☒
63.b	Market Depth Protection	☐
63.c	Price Drift Control	☒
63.d	Market Order Disabled	☐
63.e	Other	Volatility Control Mechanism, Dynamic Price Banding, Static Price Banding and Trading Halt Mechanism in After Hour Trading.
64	Does the Exchange provide self-match prevention tools configurable by both the Clearing Member/Sponsoring Firm and the Trader?	☒ Yes ☐ No
65	If yes, which of the following features are available? <i>Check all that apply</i>	
65.a	New order cancels entire resting order	☒
65.b	New order cancels only same quantity of resting order	☐
65.c	New order is canceled, resting order remains	☒
65.d	Both new order and resting order are cancelled	☐
65.e	Order will execute against each other but not print	☐
65.f	Configurable only by Trader	☐
65.g	Configurable only by Clearing Member/Sponsoring Firm	☐
65.h	Other	

66	If yes, at what levels can the controls be set <i>Check all that apply</i>	
66.a	Member level firm	☒
66.b	Group level	☒
66.c	Trader ID level	☒
66.d	Member ID level	☒
66.e	Customer Account Level	☒
66.f	Strategy Level	☒
66.g	Session ID level	☒
67	What other services does the Exchange offer Clearing Members/Sponsoring Firms to assist with risk management? <i>Check all that apply</i>	
67.a	Drop copy feeds	☒
67.b	Kill switches	☒
67.c	Independent order management tool	☒
67.d	Cancel on disconnect	☒
67.e	Order cancel (on behalf)	☒
67.f	Mass cancel (on behalf)	☒
67.g	Non-exchange infrastructure order/trade feed (web etc.)	☐
67.h	Ability to cancel delayed orders (as used in matching engine-based speed bumps)	☐
67.i	Other	
68	What other services does the Exchange offer Traders to assist with risk management? <i>Check all that apply</i>	
68.a	Drop copy feeds	☒
68.b	Kill switches	☒
68.c	Independent order management tool	☒
68.d	Cancel on disconnect	☒
68.e	Order cancel (on behalf)	☒
68.f	Mass cancel (on behalf)	☒
68.g	Non-exchange infrastructure order/trade feed (web etc.)	☐
68.h	Ability to cancel delayed orders (as used in matching engine-based speed bumps)	☐
68.i	Other	
69	If the Exchange makes a “drop copy” feed available, what information is contained in the feed? <i>Check all that apply</i>	
69.a	Order Acknowledgements	☒
69.b	Filled Orders	☒
69.c	New orders	☒
69.d	Order Amendments	☒
69.e	Order Cancellations	☒
69.f	Reject messages	☒
69.g	Time stamps for all events	☒
69.h	Order numbers for all events	☒
69.i	Other	

70	If the Exchange offers a Kill Switch to Clearing Members/Sponsoring Firms , how is it implemented? <i>Check all that apply</i>	
70.a	Manually triggered and reset using exchange- provided administration tool	☒
70.b	Triggered and reset using an exchange-provided API	☐
70.c	Automated kill switch triggered by exchange defined parameters	☐
70.d	Other	
71	If triggered and not reset intraday, does the exchange automatically reset the Kill Switch?	☒ Yes ☐ No
72	If triggered and not reset intraday, does the exchange require the Kill Switch to be manually reset?	☐ Yes ☒ No
73	If the Exchange offers a Kill Switch to Traders , how is it implemented? <i>Check all that apply</i>	
73.a	Manually triggered and reset using exchange provided administration tool	☒
73.b	Triggered and reset using an exchange provided API	☐
73.c	Automated kill switch triggered by exchange defined parameters	☐
73.d	Other	
74	If triggered and not reset intraday, does the exchange automatically reset the Kill Switch?	☒ Yes ☐ No
75	If triggered and not reset intraday, does the exchange require the Kill Switch to be manually reset?	☐ Yes ☒ No
76	If the Exchange provides independent order management capability, how is it provided? <i>Check all that apply</i>	
76.a	Manually using an exchange-provided administration tool?	☒
76.b	Automated by API	☐
76.c	Other	
77	If the Exchange provides independent order management capability, does it enable the following by phone ? <i>Check all that apply</i>	
77.a	Ability to review all orders	☒
77.b	Ability to review fill information for the day, including partial fills	☒
77.c	Ability to review cancel and replace history	☒
77.d	Ability to review timestamps	☒
77.e	Ability to cancel individual orders	☒
77.f	Ability to cancel groups of orders	☒
77.g	Ability to cancel all working orders with a single command	☒
77.h	Other	Assuming the requester is calling the exchange command center
78	If the Exchange provides independent order management capability, does it enable the following by portal ? <i>Check all that apply</i>	
78.a	Ability to review all orders	☒
78.b	Ability to review fill information for the day, including partial fills	☒
78.c	Ability to review cancel and replace history	☒
78.d	Ability to review timestamps	☒
78.e	Ability to cancel individual orders	☒
78.f	Ability to cancel groups of orders	☒
78.g	Ability to cancel all working orders with a single command	☒
78.h	Other	Assuming the member is using the exchange provided GUIs to achieve the functions above

79	If the Exchange offers cancel on disconnect at the session level, please specify whether it is mandatory or discretionary	☒ Mandatory ☐ Discretionary
80	If Mandatory, provide rule citation	As one of the requirement as per HKFE Rule 1201 (https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en)

General Exchange Pre-Trade Risk Controls

The following questions pertain to Exchange Pre-Trade Risk Controls Generally.

81	If the Exchange provides pre-trade control tools, where do each of the tools reside?				
		Gateway	Matching engine	Other	Not Applicable
81.a	Maximum order size limits	☐	☒	☐	☐
81.b	Maximum intraday net position limits	☐	☐	☒	☐
81.c	Maximum intraday gross position limits	☐	☐	☒	☐
81.d	Maximum intraday notional value limits	☐	☐	☒	☐
81.e	Maximum intraday margin utilization/buying power limits	☐	☐	☒	☐
81.f	Maximum intraday loss	☐	☐	☐	☐
81.g	Maximum number of open orders	☐	☐	☒	☐
81.h	Restricted list management	☐	☐	☒	☐
81.i	Order/Quote volume limits	☐	☐	☒	☐
81.j	User defined price collars	☐	☐	☐	☐
81.k	Number of outstanding order/quote limits	☐	☐	☒	☐
81.l	Outstanding orders/quotes volume limits	☐	☐	☒	☐
81.m	Number of messages per time interval	☐	☐	☒	☐
81.n	Message volume per time interval	☐	☐	☒	☐
82	If the Exchange provides any other pre-trade control tools, what are these, and where do each of the tools reside? Set through PTRM interface: 1) Maximum order sizes for combination orders to specify the max order size for combination orders like calendar spreads 2) Maximum block trade size to specify the max size for each block trade reporting to the derivatives market. On trading APIs and the exchange provided application: 1) Market Maker Protection limits for protection of over trading per a user-defined time period. All quotes on a product by a Market Maker ("MM") will be canceled upon the breach of a preset limit and subsequent quotes by the MM will be rejected 2) Price deviation limits for the trading application provided by the Exchange to members can be set per product per user. At market level by the main trading system: 1) The exchange is providing Dynamic Price Banding as a price deviation control 2) Volatility Control Mechanism to give the market a cooling off period upon a fast and huge move 3) Price limits for specific products in After Hours Trading 4) Trading Halt Mechanism for equity index options products in After Hours Trading.				

83	If the Exchange provides pre-trade control tools, what happens when each limit is hit?					
		Reject Order	Pause Order	Shut Down Session	Other	Not Applicable
83.a	Maximum order size limits	☒	☐	☐	☐	☐
83.b	Maximum intraday net position limits	☒	☐	☐	☐	☐
83.c	Maximum intraday gross position limits	☒	☐	☐	☐	☐
83.d	Maximum intraday notional value limits	☐	☐	☐	☐	☐
83.e	Maximum intraday margin utilization/buying power limits	☒	☐	☐	☐	☐
83.f	Maximum intraday loss	☐	☐	☐	☐	☐
83.g	Maximum number of open orders	☒	☐	☐	☐	☐
83.h	Restricted list management	☒	☐	☐	☐	☐
83.i	Order/Quote volume limits	☐	☐	☐	☐	☐
83.j	User defined price collars	☐	☐	☐	☐	☐
83.k	Number of outstanding order/quote limits	☒	☐	☐	☐	☐
83.l	Outstanding orders/quotes volume limits	☒	☐	☐	☐	☐
83.m	Number of messages per time interval	☒	☐	☐	☐	☐
83.n	Message volume per time interval	☒	☐	☐	☐	☐
84	Are there any other details that you would like to provide on the above question?	Outstanding orders can be still be canceled manually before the breach is reset. On the other hands, Order will be rejected by the triggers of the following mechanism: 1) Max Block Trade Size breach at PTRM 2) Max Combination Size breach at PTRM 3) Market Maker Protection during the freeze period at the main trading system 4) Breach of any price deviation limits at the trading application provide by HKEX 5) Volatility Mechanism for orders outside the band of the "Cool-Off Period" 6) Dynamic Price Banding for orders outside the band 7) After Hours Trading Price Limits for orders outside them 8) After Hours Trading Halt for orders in the specific equity index options market.				
85	If the Exchange provides margin utilization/buying power control limits, how is the margin calculated?	Margin Utilizations at Gross and Net are accumulated by specific formulas for PTRM. the margin rates for each product are from yesterday's risk management parameters				
86	Does the Exchange have a risk controls portal available for Clearing Member / Sponsoring Firm and Trader viewing?	☒ Yes ☐ No				
87	Does the Exchange set default risk controls if nothing is set by the Clearing Member / Sponsoring Firm or Trader?	☒ Yes ☐ No				
	If the Exchange provides pre-trade control tools, what is the sequence of events when a pre-trade control check is performed?					
88	The order is already in the matching engine queue and then the control check is performed ("out-of-line check") The control check is performed before the order reaches the matching engine and gets queued ("in-line check")	☐ ☒				
89	If the Exchange provides pre-trade control tools, are the pre-trade controls in the critical path even if they are optional (i.e., is the code still called)?	☒ Yes ☐ No				

90	If the Exchange provides pre-trade control tools, do any of the controls add latency?	☒ Yes ☐ No
91	If yes, what is the latency added?	Negligible and applied to all connections to trading.
92	If the Exchange provides pre-trade control tools, how are users notified if the controls are not operating as intended?	By market message broadcast, by email, by the contingency corner at corporate website, etc. and by phone if applicable. On the other hand, the exchange can disable the PTRM system in emergency but allowing trading to continue.
93	If the Exchange provides pre-trade control tools, how quickly do changes to the controls go into effect?	Intraday for all critical limit setting and reset functions Next day effective for all non-critical functions like creating a new risk group, adding or removing new user into a risk group, etc.
94	If the Exchange provides pre-trade control tools, is there a notification that the controls have been changed?	☒ Yes ☐ No
95	If yes, please provide specifics	There will be a notification window in the PTRM tool to mark down every next day effective change item. Other changes will be recorded in the daily audit report.
96	If the Exchange provides pre-trade control tools, are previous control settings stored?	☐ Yes ☒ No
97	If yes, provide specifics on what information is stored and for how long	all the old values of settings and the new values of settings will be recorded in the daily audit report.
98	If the Exchange provides pre-trade control tools is an audit trail of controls entered and controls changed available?	☒ Yes ☐ No

Exchange Market Integrity Controls

The following questions pertain to Exchange Market Integrity Controls.

99	What controls does the Exchange set to prevent market disruption? Please indicate whether the controls are "available" or "mandatory."	
		Available Mandatory
99.a	Dynamic price banding	☐ Available ☒ Mandatory
99.b	Market pauses or halts	☐ Available ☒ Mandatory
99.c	Message policies	☐ Available ☒ Mandatory
99.d	Message throttles	☐ Available ☒ Mandatory
99.e	Kill switches	☐ Available ☒ Mandatory
99.f	Cancel on disconnect	☐ Available ☒ Mandatory
99.g	Error policies	☐ Available ☒ Mandatory
100	If any of the above are mandatory, please provide the rule citation in each case. <u>1) Dynamic price banding</u> - Appendix 5 of HKATS User's Guide [https://www.hkex.com.hk/-/media/HKEX-Market/Services/Trading/Derivatives/Infrastructure/HKATS/HKATSONlineUsersGuide.pdf] <u>2) Market pauses or halts</u> - HKFE Rule 829 [https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_VIII.pdf?la=en] <u>3) Message policy and 4) Message throttles</u> - Mandatory to be 5 or 10 transaction per second under the agreement with members mentioned in HKFE Rule 1201 (a) [https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en] <u>5) Kill Switch provided</u> by HKFE 1205A [https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_XII.pdf?la=en] <u>6) Cancel on disconnect</u> - All connections to the derivatives market are subject to order inactivation upon disconnect [https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/HKFE/2019/MO_DT_193_19_e.pdf] <u>7) Error policies</u> - HKFE Rule 819B and 819BA [https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_VIII.pdf?la=en]	
101	If the Exchange has dynamic price banding, does it enable the following? <i>Check all that apply</i>	
101.a	Limits differentiated on specific characteristics of a product	☒
101.b	Limit differentiated based on specific conditions of the market	☐
101.c	Limits that can be adapted intraday	☒
101.d	Other	The reference price of the band will change when even the market move 1%.

102	If the Exchange has market pauses or halts, what specific events trigger such halts? <i>Check all that apply</i>	
102.a	Orders outside a given price deviations for a given financial instrument	☒
102.b	Change in volatility over a specified time interval for a given financial instrument	☒
102.c	Other	Note: 1) There is a trading halt mechanism for After- Hours-Trading equity options products. The related options market will be halted when the relevant futures product with orders outside a given price deviation, 2) There is no pauses or halts for our Volatility Control Mechanism. Trading will be within a defined band after the mechanism being triggered.
103	If the Exchange applies a market pause or halt for a specific financial instrument, does it coordinate halts with:	
103.a	Related financial instruments on the same exchange	☒
103.b	Related financial instruments on other exchanges	☐
104	If the Exchange has market pauses or halts, how is price discovery re-established after the event? <i>Check all that apply</i>	
104.a	Resume continuous trading	☒
104.b	An intraday auction period	☐
104.c	Other	Trading halts applied only during AHT this moment. the related options markets will be halted until the next session starts. Moreover, if under contingency and the Exchange halts the market for some reasons, the intraday resumption of major products will employ an auction period to re-establish the opening price.
105	If the Exchange has market pauses or halts, how is the event communicated to market participants? <i>Check all that apply</i>	
105.a	Email	☒
105.b	Website	☒
105.c	Other	Market Messages
106	If the Exchange has market pauses or halts, are the parameters that trigger such events available publicly? <i>Check all that apply</i>	
106.a	Website	☒
106.b	On request	☐
106.c	Other	
107	If the Exchange offers cancel on disconnect functionality, is it enabled by default?	☒ Yes ☐ No
108	If the Exchange has an error policy, what is the approach to “single trade” error trades? <i>Check all that apply</i>	
108.a	Let the trade stand if with defined range	☒
108.b	Let the trade stand if within specified time limit	☒
108.c	Adjust the price if it is outside a certain range	☐
108.d	Cancel/bust the trade if it outside a certain range	☒
108.e	Other	An error has to be claimed within the prescribed time period. All unclaimed trades after the Prescribed Time Period will stand.

109	If the Exchange has an error policy, what is the approach to “ mass trade ” error trades? <i>Check all that apply</i>	
109.a	Let trade stand if with defined range	☒
109.b	Let trade stand if within specified time limit	☒
109.c	Adjust price if outside a certain range	☐
109.d	Cancel/bust trade if outside a certain range	☒
109.e	Other	For "massive error trades", the Exchange has another Large Scale Error Trade Procedure to handle a large-scale error trade event upon a claim within the Prescribed Time Limit, the Exchange will use a theoretical price to define the cancellation range. Also, the Exchange will review all the trades that happened during the period no matter if they are claimed or not.
110	If the Exchange’s error trade policy adjusts prices outside of a certain range, what is the approach for determining that range?	
111	Are all products subject to the same approach or do some products inherit the same range as other similar products? <i>For example, does a calendar spread product inherit the range from the corresponding outright product? Or is the range for that calendar spread product assessed on its own merit?</i>	Detailed price parameters and notation/ reference price determination methods for different products are printed on the corporate website: https://www.hkex.com.hk/Services/Trading/Derivatives/Overview/Trading-Mechanism/Error-Trades?sc_lang=en <i>For your example, Calendar Spread and Outright product are treated</i>
112	How often are these ranges reviewed to ensure they offer appropriate protection?	The review is event driven at the Exchange and the ranges will be reviewed: 1) When there is a new product to be launched; and 2) Where there is an extreme market condition
113	How often has the error trade policy been invoked in the past 12 months, and what were the circumstances for each?	No dispute was found for approx. 70 error trade claims in the past 12 months. Only a few trades were involved in each claim and all of them were eligible to be canceled according to the Rule Of Exchange.
114	Does the Exchange have a clearly defined dispute resolution forum in case of error trades?	☒ Yes ☐ No
115	If yes, what is the forum and dispute resolution process	Error Trade Panel Pursuant to HKFE Rule (c) to (f): https://www.hkex.com.hk/-/media/HKEX-Market/Services/Rules-and-Forms-and-Fees/Rules/HKFE/Rules/FE_VIII.pdf?la=en

Exchange Certification and Testing Environments		
The following questions pertain to Exchange Market Integrity Controls.		
116	Does the Exchange provide a certification environment for certifying vendor and proprietary trading systems?	☒ Yes ☐ No
117	If the Exchange provides a certification environment, which specific functions must be certified? <i>Check all that apply</i>	
117.a	Ability of the system to communicate with the exchange	☒
117.b	Specific trading functionality offered by the system	☒
117.c	Specific risk functionality offered by the system	☒
117.e	Other	
118	Does the Exchange provide one certification environment for current production and another environment for the next version of production?	☒ Yes ☐ No
119	If yes, what is the availability of the certification environment?	Except at month end, Monday to Saturday 10:00 am to 9:00 am HKT
120	How closely does the certification environment mirror the production environment?	
120.a	Exact duplicate with mirrored synthetic market activity from production	☐
120.b	Exact duplicate without mirrored market activity, only activity from other certification activity	☒
120.c	Other	
121	Does the Exchange offer a test symbol in the production environment to enable the entry of test trades in production without impacting actual markets?	☐ Yes ☒ No
122	If the Exchange offers a certification environment, which of the following tests can be performed in this environment? <i>Check all that apply</i>	
122.a	Unit testing	☒
122.b	Functional testing (integration, regression)	☒
122.c	Non-functional testing (load, stress, performance, scalability)	☐
122.d	Acceptance testing	☒
123	If the Exchange offers a certification environment, which of the following actions can be performed in this environment? <i>Check all that apply</i>	
123.a	Send a test order	☒
123.b	Send a cancel of the test order	☒
123.c	Test all order types (blocks, crosses, etc.)	☒
123.d	Receive confirmation of a cancellation of test order	☒
123.e	Receive confirmation of partial execution of the test order and cancellation	☒
123.f	Receive confirmation of full execution of the test order and cancellation	☒
123.g	Receive confirmation of rejection of the test order	☒
123.h	Receive confirmation of enabled risk controls working in the enviroment	☒
123.i	Test pre-trade risk control functionality	☒
124	How are certification and live environments segregated? <i>i.e., Are applicable orders (test or live) going over the same wires such that a configuration error can have a major impact?</i>	Live Network and Environment are fully separated from those for Certification

General Information		
125	Does the Exchange provide information on the following to the public via website/exchange portal? <i>Check all that apply</i>	
125.a	Risk control tools provided by the Exchange to Traders	☒
125.b	Risk control tools provided by the Exchange to Clearing Members/Sponsoring Firms	☒
125.c	Mechanisms used by the Exchange to protect market integrity	☒
126	Does the Exchange verify Exchange set market integrity control settings to ensure that the values would prevent a market disruption?	☒ Yes ☐ No
127	Does the Exchange test and validate all Exchange provided risk control tools to ensure that they are operating properly?	☒ Yes ☐ No
128	Is there any additional information that you would like to provide on the Exchange's risk control tools?	Additional measures: 1) Compulsory re-certification every 3 years 2) Periodical PTRM limit review 3) Annual API Program Self-attestation 4) Compulsory Market Making Protection setting 5) Annual review on the deviation settings at the Exchange provided trading application 6) Regular drills with the market on the potential communications upon a market contingency, for example, on the trading system or the risk control system.