

**Market Rehearsal for
Volatility Control Mechanism (VCM) in
Derivatives Market on
24 September 2016**

**Information Package for
Exchange Participants (HKATS)**

Version 1.0

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Table of Contents

1. INTRODUCTION	3
2. OBJECTIVE AND SCOPE	3
2.1 OBJECTIVE.....	3
2.2 SCOPE.....	3
3. COMPLIANCE.....	4
4. PARTICIPANTS REQUIREMENTS.....	4
5. DO’S AND DON’TS	5
6. HELP DESK.....	5
7. MARKET REHEARSAL.....	6
7.1 DATE AND TIME TABLE	6
7.2 CHECKLISTS AND DETAILED RUNDOWN	6
7.3 HKATS USERNAMES & PASSWORDS	7
7.4 PRODUCTION-LIKE ENVIRONMENT	7
7.5 MARKET REHEARSAL EVALUATION	7
7.6 ORDER HANDLING DURING VCM COOLING-OFF PERIOD	7
8. TYPHOON AND BLACK RAINSTORM ARRANGEMENT	8
8.1 TYPHOON ARRANGEMENT	8
8.2 BLACK RAINSTORM ARRANGEMENT	8
9. EP COMMUNICATION CHANNELS	8
APPENDIX A: MARKET REHEARSAL CHECKLIST	9
APPENDIX B: MARKET REHEARSAL DETAILED RUNDOWN (24 SEP 2016)	10
APPENDIX C: VCM MARKET REHEARSAL - CONFIRMATION FORM (24 SEP 2016).....	12

1. Introduction

Hong Kong Exchanges and Clearing Limited (“HKEX”) plans to launch the Volatility Control Mechanism (“VCM”) in derivatives market tentatively in November, 2016 in order to safeguard the market integrity by addressing potential systemic risks arising from advances in trading technology, such as algorithmic trading, and the inter-connectedness of securities and derivatives markets.

To allow Exchange Participants (“EPs”) to familiarise the trading mechanism of VCM and also examine their operations and system readiness, a Market Rehearsal test (“MR”) will be conducted on Saturday, 24 September 2016.

The result of the MR will be reviewed in details. Participated EPs are required to return their confirmation forms within one hour after the MR on 24 September 2016.

2. Objective and Scope

2.1 Objective

The objectives of the test are:

1. To provide an opportunity for EPs to verify whether their trading programs and/or other systems can function normally after the implementation of VCM in derivatives market.
2. To allow EPs to familiarise the trading pattern during and after VCM Cooling-off Period.

2.2 Scope

The scope of MR includes the followings:

1. During cooling-off period, receive VCM relevant information including: reference price, upper and lower price limits, start time and end time of cooling-off period
2. During cooling-off period, input order at price outside the price limit (i.e. buy order higher than the upper price limit or sell order lower than the lower price limit) and the order will be rejected by HKATS
3. During cooling-off period, input order at price within the price limit (i.e. buy order at or lower than the upper price limit or sell order at or higher than the lower price limit) and the order will be accepted
4. After cooling-off period, input order at price outside the price limit and the order will be accepted

5. Simulate EPs real-life trading pattern and activities

Please note:

1. OMD-D is also available to be connected in all Trading Sessions.
2. DCASS (Derivatives Clearing and Settlement System) Terminals and DCASS OAPI programs **DO NOT** need to participate in the MR.

3. Compliance

To ensure the MR objectives are achieved, it is imperative that EPs follow the checklist and detailed rundown as stipulated in Appendix A and Appendix B. This will facilitate HKEX staff to monitor the activities and provide necessary assistance to EPs during the MR. In particular, EP personnel who will be involved in the MR should familiarize themselves with the testing requirements and procedures prior to participating in the MR.

In addition, it is advisable to maintain a proper audit trail in respect of each transaction and /or query input during the MR in accordance with the policy currently adopted by EPs. Each participating EP should have a Responsible Officer or his/her designate present during the MR to supervise the process and to be responsible for relaying any issues arising during the MR to HKEX. The Responsible Officer's designate should be an appropriate senior staff to assume the role of the Responsible Officer. In any event, it is recommended that internal communications such as internal briefing should be held by each EP prior to the MR to ensure that:

1. Staff(s) involved fully understand all the requirements and procedures; and
2. Proper arrangements have been put in place by the EPs to comply with the testing requirements.

4. Participants Requirements

In order to be ready for the MR, all participating EPs have to meet the following requirements:

1. OAPI programs which will take part in the MR have been certified; and
2. EPs' staff who will take part in the MR must have been trained and accredited in the operation of HKATS and CLICK Trade.

5. Do's and Don'ts

Do's

1. Backup production data prior to the MR;
2. Login to HKATS as early as possible after 9:45 a.m. on the day of the MR;
3. Ensure that the proper version of OAPI program is used for the MR;
4. Backup all relevant log files for subsequent review;
5. Make sure all testing data will not be carried forward;
6. Ensure that the checklist is properly followed;
7. Fill in and return the confirmation form to HKEX through fax or email within one hour after market close on the MR day; and

Don'ts

1. Don't login any DCASS application (including DCASS Terminal and/or DCASS OAPI program) on the MR day.

6. Help Desk

HKATS Help Desk will respond to EPs' inquiries during the MR. Details are as follows:

HKATS Hotline: 2211-6360

7. Market Rehearsal

7.1 Date and Time Table

The system date will be set as 24 September 2016 and HKATS account setting will be the same as 19 August 2016 start of day production image. The MR will utilize the HKATS production network. Rundown and tasks for EPs are as follows:

Market Rehearsal			
Date: 24 Sep 2016			
TEST	PHASES	TIME FRAME	EPs' TASKS
1st Trading Session			
Connect to HKATS ~ Login		9:45 a.m. – 10:15 a.m.	<ul style="list-style-type: none"> Login HKATS OAPI and CLICK Trade Check/synchronize system clock of your workstation (if necessary) Refer to Section 1-1 of Appendix B
1 st Session	Pre-Market Opening	10:15 a.m. – 10:30 a.m.	<ul style="list-style-type: none"> Refer to Section 1-2 of Appendix B
1 st Session	Open	10:30 a.m. – 11:10 a.m.	<ul style="list-style-type: none"> Refer to Sections 1-3 and 1-4 of Appendix B
Market Pause	Pause	11:10 a.m.	
Break (11:10 a.m. – 11:25 a.m.)			
2nd Trading Session			
2 nd Session	Pre-Market Opening	11:25 a.m. – 11:40 a.m.	<ul style="list-style-type: none"> Refer to Section 1-5 of Appendix B
2 nd Session	Open	11:40 a.m. – 12:30 p.m.	<ul style="list-style-type: none"> Refer to Sections 1-6 to 1-8 of Appendix B
MR Ends	Close	12:30 p.m.	<ul style="list-style-type: none"> Fax or email Confirmation Form (Appendix C) to HKEX before 1:30 p.m. Logout HKATS OAPI and CLICK Trade after the MR
Post-Rehearsal Health Check (Optional)			
EP login (Optional)		Confirm with HKEX on 24 Sep 2016	<ul style="list-style-type: none"> Login to HKATS Refer to Section 2-1 of Appendix B

7.2 Checklists and Detailed Rundown

All EPs participating in the MR are required to perform action items described in the checklist and detailed rundown. Please refer to Appendices A and B for the checklist and detailed rundown respectively.

7.3 HKATS Usernames & Passwords

All users will use their production HKATS usernames to login. All passwords will be reset to **hkextesting**. The passwords will not be carried forward to production. All usernames will have the same trading access level as in the production environment.

7.4 Production-like Environment

The production-like environment will contain all futures and most options contracts months as specified in the contract specifications with September 2016 as spot month contract while standard combinations (calendar spread) are available in some markets such as HSI, MHI, HHI and MCH futures.

The production-like environment will also include the setup of Pre-Market Opening Period and Dynamic Price Banding Mechanism for Mini H-shares Index Futures (MCH) which will be effective in production from 3 October 2016.

7.5 Market Rehearsal Evaluation

All participating EPs are requested to fill in and return the confirmation form in Appendix C before 1:30 p.m. upon completion of the MR. EPs may choose to return the confirmation form by email or by fax. EPs choosing to return the form by email should send the form to ClickSupport@hkex.com.hk using the Participant's corporate email account.

EPs may fax the confirmation form to HKEX at 2509 0724 or 2877 0017.

7.6 Order Handling During VCM Cooling-off Period

When Cooling-off period is triggered due to VCM upper price limit being reached

- The incoming order can be partially executed to the extent that the trade prices are at or within limits. The remaining part of the order with potential trade price exceeds the limits will not be executed and will be cancelled by HKATS
- HKATS will also cancel the existing high price buy orders (i.e. those with buy price > upper price limit) that reside in the buy order queue
- All the existing sell orders will remain in the order queue no matter if their prices are higher than the upper price limit, and will not be cancelled by HKATS

When Cooling-off period is triggered due to VCM lower price limit being reached

- The incoming order can be partially executed to the extent that the trade prices are at or within limits. The remaining part of the order with potential trade price exceeds the limits will not be executed and will be cancelled by HKATS
- HKATS will also cancel the existing low price sell orders (i.e. those with sell price < lower price limit) that reside in the sell order queue
- All the existing buy orders will remain in the order queue no matter if their prices are lower than the lower price limit and will not be cancelled by HKATS

During the Cooling-off period

- Any incoming buy orders with price higher than upper price limit and sell order with price lower than lower price limit will be rejected by HKATS immediately
- Any incoming buy orders with price equal to or lower than upper price limit and sell order with price equal to or higher than lower price limit will still be accepted by HKATS

8. Typhoon and Black Rainstorm Arrangement

8.1 Typhoon Arrangement

1. If typhoon signal no.8 or above is hoisted and not lowered before 8:30 a.m. on the MR day, the MR will be cancelled. HKEX will notify EPs the revised schedule at a later stage.
2. If typhoon signal no.8 or above is hoisted after 8:30 a.m. and before 12:15 p.m., the MR will be terminated 15 minutes after typhoon signal no. 8 is hoisted.

8.2 Black Rainstorm Arrangement

1. If black rainstorm warning is issued and not lowered before 8:30 a.m. on the MR day, the MR will be cancelled. HKEX will notify EPs the revised schedule at a later stage.
2. If black rainstorm warning is issued during the MR, the MR will proceed as scheduled.

9. EP Communication Channels

During the MR, HKEX will communicate with Participants via the following channels:

1. Under normal situation, HKEX will communicate with participants via Market Messages (BI81) on HKATS;
2. In case of emergency where EPs are unable to access market message on HKATS, HKEX will notify EPs of any ad-hoc arrangements via telephone.

Should cancellation or postponement of the MR be required due to unexpected reasons one hour before the MR, HKEX will inform EPs of the ad-hoc arrangements via telephone. Participants should ensure that their HKATS contact staff would be reachable during the prescribed time and the relevant mobile phone numbers submitted to HKEX are correct.

APPENDIX A: Market Rehearsal Checklist

Items to be checked		✓
(A) Before the MR		
1	Have you ensured the setting of your OAPI program is ready for the MR?	
2	Have you read and understood this document (“MR for VCM - Information Package for EPs (HKATS)”)?	
3	Have you passed this document to your internal IT support team or system vendor and ensured that they would make follow-up action to ensure the tested OAPI program is ready for the testing capacity?	
4	Have you ensured that the HKATS username and password (reset to hkextesting) are ready for use in the MR?	
5	Have your OAPI programs already been certified?	
(B) On MR day, before executing the MR		
1	Remember to use the password (hkextesting) for the HKATS usernames to login.	
2	Ensure no DCASS application (including DCASS Terminal and DCASS OAPI program) is logged in.	
(C) After the MR		
1	Have you submitted the Confirmation Form (Appendix C) before 1:30 p.m.?	
2	Have you backed up all relevant log files for subsequent review?	
3	Have you cleaned up all testing data?	
4	EPs should switch back to production version for OAPI program, if needed, after the MR.	

APPENDIX B: Market Rehearsal Detailed Rundown (24 Sep 2016)

SECTION	TIME	ACTION	EXPECTED RESULTS/REMARKS
1-1 Login	9:45 a.m. - 10:15 a.m.	<ul style="list-style-type: none"> Login HKATS OAPI and CLICK Trade by using the HKATS usernames as of 19th Aug 2016 and password (hkextesting). 	<ul style="list-style-type: none"> OAPI program and CLICK Trade login successfully.
		<u>1st Trading Session</u>	
1-2 (Pre-Market Opening)	10:15 a.m. - 10:30 a.m.	<p>HSIU6 and MHIU6:</p> <ul style="list-style-type: none"> Enter 1 bid and 1 sell Auction orders Enter 1 bid and 1 sell limit orders at the price range 22,000 - 22,500 <p>HHIU6 and MCHU6:</p> <ul style="list-style-type: none"> Enter 1 bid and 1 sell Auction orders Enter 1 bid and 1 sell limit orders at the price range 11,000 - 11,200 	<ul style="list-style-type: none"> Orders will be sent to the corresponding instrument and the EPs' order books COP of HSIU6, MHIU6, HHIU6 and MCHU6 will be established Trades will be resulted when markets open, traded price and quantity are correct
1-3 (OPEN)	10:30 a.m. - 10:45 a.m.	<ul style="list-style-type: none"> Input one order per minute in one of the following index futures products: HSI/ MHI/ HHI/ MCH Price: (HSI and MHI) 22,000 – 22,500 (HHI and MCH) 11,000 – 11,200 Quantity: max. 5 lots per order 	<ul style="list-style-type: none"> Orders will be sent to the corresponding instrument and the EPs' order books Trades will be resulted, traded price and quantity are correct
1-4 (OPEN)	10:45 a.m. - 11:10 a.m.	<ul style="list-style-type: none"> Input one order per minute in one of the following index futures products: HSI/ MHI/ HHI/ MCH Price: (HSI and MHI) 20,500 – 24,000 (HHI and MCH) 10,000 – 12,000 Quantity: max. 2 lots per order 	<ul style="list-style-type: none"> Cooling-off period can be triggered once per VCM Exchange Contract subject to trading activities When cooling-off is triggered, market message will be broadcasted Please refer to section 7.6 for the details of order handling during cooling-off period.
	11:10 a.m. - 11:25 a.m.	<u>Market Pause</u>	
		<u>2nd Trading Session</u>	
1-5 (Pre-Market Opening)	11:25 a.m. - 11:40 a.m.	<p>HSIU6 and MHIU6:</p> <ul style="list-style-type: none"> Enter 1 bid and 1 sell Auction orders Enter 1 bid and 1 sell limit orders at the price range 22,000 - 22,500 <p>HHIU6 and MCHU6:</p> <ul style="list-style-type: none"> Enter 1 bid and 1 sell Auction orders Enter 1 bid and 1 sell limit orders at the price range 11,000 - 11,200 	<ul style="list-style-type: none"> Orders will be sent to the corresponding instrument and the EPs' order books COP of HSIU6, MHIU6, HHIU6 and MCHU6 will be established Trades will be resulted when markets open, traded price and quantity are correct
1-6 (OPEN)	11:40 a.m. - 11:55 a.m.	<ul style="list-style-type: none"> Input one order per minute in one of the following index futures products: HSI/ MHI/ HHI/ MCH Price: (HSI and MHI) 22,000 – 22,500 (HHI and MCH) 11,000 – 11,200 Quantity: max. 5 lots per order 	<ul style="list-style-type: none"> Orders will be sent to the corresponding instrument and the EPs' order books Trades will be resulted, traded price and quantity are correct

SECTION	TIME	ACTION	EXPECTED RESULTS/REMARKS
1-7 (OPEN)	11:55 a.m. - 12:20 p.m.	<ul style="list-style-type: none"> Input one order per minute in one of the following index futures products: HSI/ MHI/ HHI/ MCH Price: (HSI and MHI) 20,500 – 24,000 (HHI and MCH) 10,000 – 12,000 Quantity: max. 2 lots per order 	<ul style="list-style-type: none"> Cooling-off period can be triggered once per VCM Exchange Contract subject to trading activities When cooling-off is triggered, market message will be broadcasted Please refer to the section 7.6 for the details of order handling during cooling-off period.
1-8 (OPEN)	12:20 p.m. - 12:30 p.m.	<ul style="list-style-type: none"> Input five trades in one of the following index futures products: HSI/ MHI/ HHI/ MCH Price: (HSI and MHI) 20,500 – 24,000 (HHI and MCH) 10,000 – 12,000 Quantity: max. 2 lots per order 	<ul style="list-style-type: none"> Trades will be resulted, traded price and quantity are correct Cooling-off period will not be triggered in this section
	12:30 p.m.	<u>Market Close</u>	<ul style="list-style-type: none"> <u>Return Confirmation Form before 1:30 p.m.</u> Logout HKATS OAPI and CLICK Trade after the MR

Post-Rehearsal Health Check (Optional)

SECTION	TIME	ACTION	EXPECTED RESULTS/REMARKS
2-1	Confirm with HKEX on 24 Sep 2016	<ul style="list-style-type: none"> <u>Login HKATS</u> with the OAPI program by using the production HKATS username and password. 	<ul style="list-style-type: none"> The OAPI program logins successfully.

APPENDIX C: VCM Market Rehearsal - Confirmation Form (24 Sep 2016)

To : Hong Kong Exchanges and Clearing Limited
Email : clicksupport@hkex.com.hk
Fax : 2509 0724 / 2877 0017

Particulars of Exchange Participant

Mnemonic / Firm ID	Participant Name
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Responsible Officer (or Designate)

Name	Signature
Tel	

1. Did your OAPI program(s)/ CLICK Trade function normally during the 1st Trading Session?

☐ Yes

☐ No and the details are:

Program name: _____

Self developed / Name of OAPI vendor: _____

Problem: _____

2. Did your OAPI program(s)/ CLICK Trade function normally during the 2nd Trading Session?

☐ Yes

☐ No and the details are:

Program name: _____

Self developed / Name of OAPI vendor: _____

Problem: _____

3. Do you consider your company is ready for the implementation of VCM in derivatives market?

☐ Yes

☐ No

Exchange Participants are requested to complete this form and return it to HKEX by fax or email via corporate email account before 1:30 p.m. on 24 Sep 2016.

-End-