



# Pre-Market Opening Session (“POS”) and Volatility Control Mechanism (“VCM”) Enhancements (Derivatives Markets)

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# Agenda

- Current Mechanism and Enhancement of POS
- Current Mechanism and Enhancement of VCM
- Technical Arrangements & Participant Readiness
- Practice Session
- Reminder



# Current Mechanism and Enhancement of POS



# Current Mechanism of Pre-Market Opening Session

- POS allows the market to establish Calculated Opening Prices (“COP”) before the markets open
- Products currently available for trading in POS:

Product	Duration
<ul style="list-style-type: none"><li>• Hang Seng Index Futures</li><li>• Mini-Hang Seng Index Futures</li><li>• HSCEI Index Futures</li><li>• Mini-HSCEI Index Futures</li><li>• Hang Seng TECH Index Futures</li></ul>	30 Minutes
<ul style="list-style-type: none"><li>• MSCI Taiwan (USD) Index Futures</li><li>• MSCI Taiwan Net Total Return (USD) Index Futures</li><li>• MSCI Taiwan 25/50 (USD) Index Futures</li><li>• MSCI Taiwan Net Total Return 25/50 (USD) Index Futures</li></ul>	15 Minutes

- No change in the total duration of POS



# Current Mechanism of Pre-Market Opening Session

## Calculation of COP

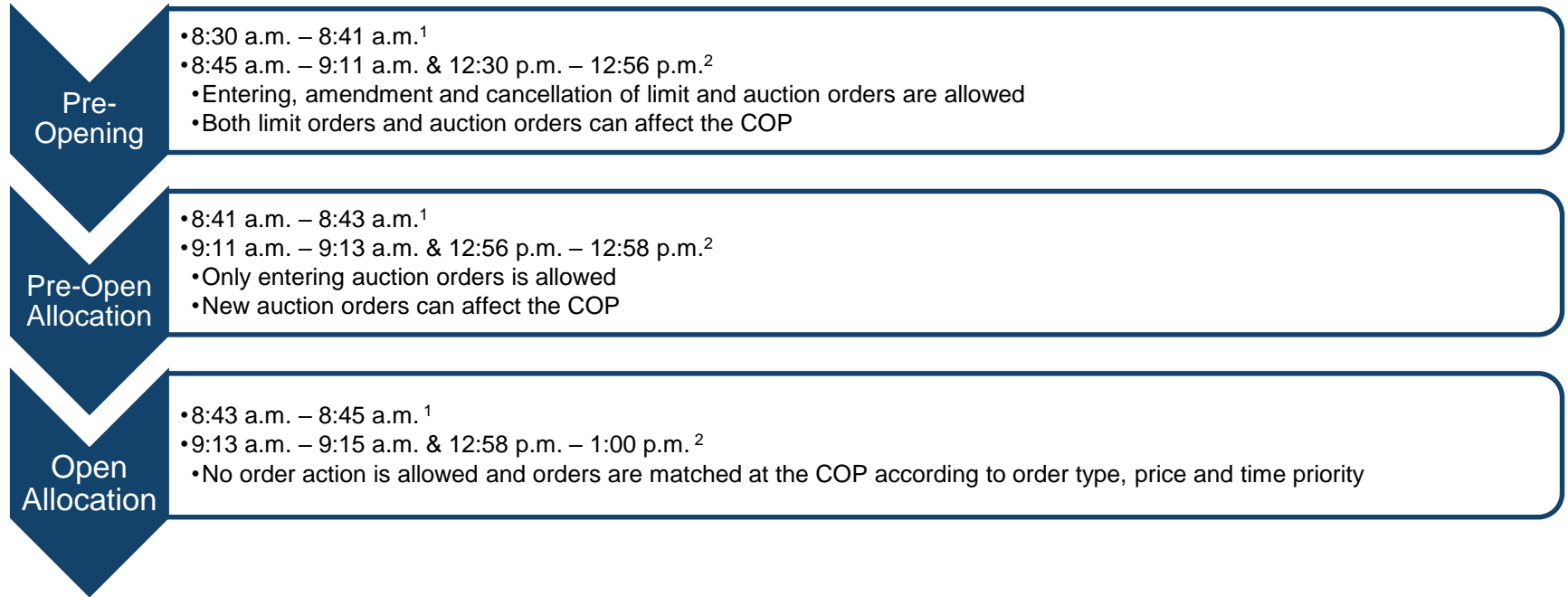
The COP is calculated every time an order is placed in the market and it will be displayed in the "EP" column of the Price Information Window. The COP is calculated according to the rules defined below. The COP cannot fall outside the best bid and offer of unfilled orders, though it can be equal to the bid or offer;

- a) If more than one price satisfy rules 1 above, the COP will be the price with the number of matched contracts is maximized;
  - b) If more than one price satisfy the rules 1 & 2 above, the COP will be the price at which the normal order imbalance is the lowest;
  - c) If more than one price satisfy the rules 1 - 3 above, the COP will be the price at which the associated crossed qty is the highest;
  - d) If more than one price satisfy 1 - 4 above, the COP will be the price closest to the settlement price of previous trading section;
  - e) If more than one price satisfy 1 - 5 above or if no settlement price is defined, the highest price will be chosen.
- No change in the current COP calculation logic



# Current Mechanism of Pre-Market Opening Session

- POS comprises the following 3 trading sessions



1. For MSCI Taiwan Index related Futures  
2. For HSI, HHI, MHI, MCH and HTI Futures



# Objectives and Background of Enhanced POS Mechanism





# Enhanced POS Mechanism

Pre- Market Opening Session					
Time	MSCI Taiwan Index related Futures				
	8:30 a.m. →	9 <sup>th</sup> - 10 <sup>th</sup> min	After cutoff →	12 <sup>th</sup> - 13 <sup>th</sup> min	After cutoff → 8:45 a.m.
Time	HSI, HHI, MHI, MCH and HTI Futures				
	8:45 a.m. & 12:30 p.m. →	24 <sup>th</sup> - 25 <sup>th</sup> min	After cutoff →	27 <sup>th</sup> - 28 <sup>th</sup> min	After cutoff → 9:15 a.m. & 1:00 p.m.
Session	Pre-Opening	Random Cutoff	Pre-Open Allocation	Random Cutoff	Open Allocation
Description	<ul style="list-style-type: none"> <li>Entering, amendment and cancellation of limit and auction orders are allowed</li> <li>Both limit orders and auction orders can affect the COP</li> </ul>	Current mechanism to cutoff at <b>11<sup>th</sup></b> and <b>26<sup>th</sup></b> min respectively	<ul style="list-style-type: none"> <li>Only entering auction orders is allowed</li> <li>New auction orders can affect the COP</li> </ul>	Current mechanism to cutoff at <b>13<sup>th</sup></b> and <b>28<sup>th</sup></b> min respectively	<ul style="list-style-type: none"> <li>No order action is allowed</li> <li>Orders are matched at the COP according to order type, price and time priority</li> </ul>



# Current Mechanism and Enhancement of VCM



# Background & Objectives of VCM Enhancement

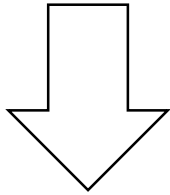
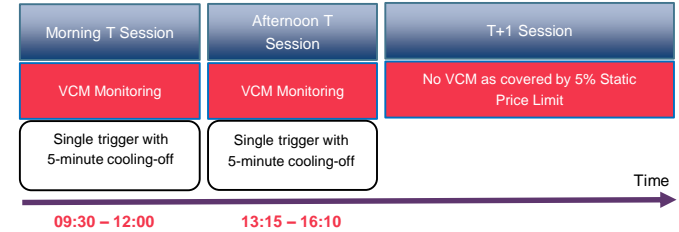
- Launched in January 2017 and with no VCM triggered since
- Applied to spot and spot-next months of HSI, MHI, HHI and MCH Futures (8 contracts in total)



# Enhancement of Volatility Control Mechanism

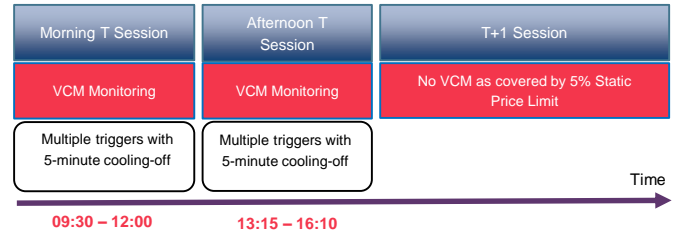
Current Mechanism

- A light touch approach with a maximum of 1 trigger per Morning and Afternoon T-Session
- 5-minute cooling-off period for trading within price band when VCM is triggered
- Resume trading with NO VCM monitoring within the same session



Enhanced Mechanism

- No limit on the number of triggers (VCM not applicable in T+1 Session)
- 5-minute cooling-off period for trading within price band when VCM is triggered
- VCM monitoring resumes immediately after the expiry of the 5-min cooling-off period<sup>1</sup>



1. If there is no trade concluded during the cooling-off period, the first trade concluded after the cooling-off period will become the reference price and VCM monitoring will be resumed thereafter (excluding the trades of combo vs. combo trades, tailor-made combination trades and block trades)

# Technical Information & Participant Readiness



# Technical Information

- Participants are advised to note the technical information:
  - POS
    - No new Trading Session State (“TSS”) will be introduced
    - Sequence of existing TSSs are as per existing arrangement
    - Start time of Pre-Open Allocation state (state number 5) and Open Allocation state (state number 1) will be randomized instead of a fixed starting time
    - The start times of Pause state (state number 6) are as per existing arrangement (showing the trades matched in POS)
    - Starting times of Continuous Trading Session are as per existing arrangement
    - A market message will be disseminated after the change of each market session



# Technical Information

- Participants are advised to note the technical information:
  - VCM
    - No new TSS / Instrument Session State (“ISS”) will be introduced
    - If no trade is executed during cool-off, there will be no VCM after cool-off and VCM will be re-activated immediately after the first trade
    - If there is trade executed during cool-off, the reference price after cool-off will be the reference price 5 minutes ago
    - Multiple ISSs of VCM\_COOL\_OFF\_DPL (state number 25) could occur during T session under multiple triggers
    - A market message will be disseminated following a trigger of VCM cooling-off Period



# Participant Readiness

- The enhancements have been deployed in the End-to-End Testing Environment
- Please contact our admin team at [hkatssupport@hkex.com.hk](mailto:hkatssupport@hkex.com.hk) to set up your access

- 
- Practice Session: 27 February 2021
  - Tentative Launch Date: Q2 2021





# Practice Session



# Practice Session

- **Mandatory** for EPs whom have participated in POS after 1 July 2020
- Aims to provide an opportunity for EPs to verify system readiness and operational readiness
- Allow EPs to familiarize with the random cutoff mechanism during POS and the multiple triggers of VCM at the same trading session
- Scope of the Practice Session requires EPs to:
  1. Perform login and ensure normal connectivity
  2. Perform POS and VCM related order activities
  3. Verify order and trade details(Detailed timetable and rundown by Information Package will be provided in due course)



# EP Reminder

Item	Reminder	Reference
1	Complete the online registration form before 19 February 2021 for the Practice Session	<p>Circular for Practice Session:  <a href="https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/HKFE/2021/MO_DT_015_21_ea.pdf">https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/HKFE/2021/MO_DT_015_21_ea.pdf</a></p> <p>Online Registration Form  <a href="https://events.hkexgroup.com/en/practice-sessions-for-vcn-and-pos-enhancements-27-feb-2021-5a326FDHT3/overview">https://events.hkexgroup.com/en/practice-sessions-for-vcn-and-pos-enhancements-27-feb-2021-5a326FDHT3/overview</a></p>
2	Remind the clients and relevant personnel on the enhancements to both POS and VCM	<p>Web Corner for POS:  <a href="https://www.hkex.com.hk/Services/Trading/Derivatives/Overview/Trading-Mechanism/Pre-Market-Opening-Period?sc_lang=en">https://www.hkex.com.hk/Services/Trading/Derivatives/Overview/Trading-Mechanism/Pre-Market-Opening-Period?sc_lang=en</a></p> <p>Web Corner for VCM  <a href="https://www.hkex.com.hk/Services/Trading/Derivatives/Overview/Trading-Mechanism/Volatility-Control-Mechanism-(VCM)?sc_lang=en">https://www.hkex.com.hk/Services/Trading/Derivatives/Overview/Trading-Mechanism/Volatility-Control-Mechanism-(VCM)?sc_lang=en</a></p>

**Pre-Market Opening Period**

**Overview**

The pre-market opening mechanism serves to establish an orderly market open and greatly enhances market efficiency. During the Pre-Market Opening Period, the established trading price (COP) is established before the market open without trading orders. At present, the pre-market opening is only available for the trading of Hang Seng Index-related futures contracts, HSI(1) Index-related futures contracts, HSI(2) Index-related futures contracts and Hang Seng TECH Index futures contracts.

HKEX plans to enhance the PMOP by introducing a random call mechanism to the pre-opening session and the pre-qualification session. The enhancement aims to deter the possible gaming strategy of manipulating the COP near the end of the auction process and also to encourage order input at an earlier stage. To facilitate the random call, the pre-opening session will be shortened by one minute while the pre-qualification session will be extended by one minute. It will be applied to the PMOP for both morning and afternoon sessions of the applicable markets. Please refer to circular for the new schedule of enhanced Pre-Market Opening Session.

**Proposed Enhancement on the Market Opening Session**

- Presentation Mechanism Enhancement on the Market Opening Session
- FMO
- Circular Enhancements for Volatility Control Mechanism ("VCM") and the Market Opening Session ("MOS") of the Derivatives Market

**Current Mechanism of the Market Opening Session**

Limit orders entered from the previous day would be considered as effective and included in the COP calculation during the Pre-Market Opening Period. The COP would be updated continuously until it is determined. The pre-market opening mechanism does not apply to combination orders, including market combination and order-to-market combination orders. Therefore no orders could be placed on combination orders during the Market Opening Period and pending combination orders would not be included in the COP calculation.

The Pre-Market Opening Period comprises of the following three trading sessions:

**Volatility Control Mechanism (VCM)**

**Overview**

The Volatility Control Mechanism (VCM) in the securities market and the Derivatives market was launched on 22 August 2016 and 16 January 2017 respectively. As VCM was new to Hong Kong when it was launched, a light touch and simple model was adopted which only allows a maximum number of one trigger per trading session.

HKEX propose strengthening VCM by allowing multiple triggers per trading session to better safeguard market integrity. Once implemented, there will be no maximum number of triggers imposed.

**Proposed Enhancement on Volatility Control Mechanism**

- Presentation Mechanism Enhancements on Volatility Control Mechanism
- FMO
- Circular Enhancements for Volatility Control Mechanism ("VCM") and the Market Opening Session ("MOS") of the Derivatives Market

**Other Reference Materials**

- Overview of VCM and Derivation Timeline
- Consultation Conclusions
- Frequently Asked Questions
- Trading Mechanism of Volatility Control Mechanism (VCM) in the Derivatives Market



Thank You

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