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:

<table>
<thead>
<tr>
<th>Product</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hang Seng Index Futures</td>
<td>30 Minutes</td>
</tr>
<tr>
<td>• Mini-Hang Seng Index Futures</td>
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<tr>
<td>• HSCEI Index Futures</td>
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<td>• Mini-HSCEI Index Futures</td>
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<tr>
<td>• Hang Seng TECH Index Futures</td>
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<tr>
<td>• MSCI Taiwan (USD) Index Futures</td>
<td>15 Minutes</td>
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<tr>
<td>• MSCI Taiwan Net Total Return (USD) Index Futures</td>
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<tr>
<td>• MSCI Taiwan 25/50 (USD) Index Futures</td>
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</tr>
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</tbody>
</table>

- 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

Pre-Opening
- 8:30 a.m. – 8:41 a.m.¹
- 8:45 a.m. – 9:11 a.m. & 12:30 p.m. – 12:56 p.m.²
  • Entering, amendment and cancellation of limit and auction orders are allowed
  • Both limit orders and auction orders can affect the COP

Pre-Open Allocation
- 8:41 a.m. – 8:43 a.m.¹
- 9:11 a.m. – 9:13 a.m. & 12:56 p.m. – 12:58 p.m.²
  • Only entering auction orders is allowed
  • New auction orders can affect the COP

Open Allocation
- 8:43 a.m. – 8:45 a.m.¹
- 9:13 a.m. – 9:15 a.m. & 12:58 p.m. – 1:00 p.m.²
  • No order action is allowed and orders are matched at the COP according to order type, price and time priority

¹ For MSCI Taiwan Index related Futures
² For HSI, HHI, MHI, MCH and HTI Futures
Objectives and Background of Enhanced POS Mechanism

- Introduce Random Cutoff at both Pre-Opening Session and Pre-Open Allocation Session
- Deter possible gaming strategies of manipulating the COPs
- Encourage earlier order inputs during POS
- Market support to enhance current POS in soft-consultation
# Enhanced POS Mechanism

## Pre- Market Opening Session

<table>
<thead>
<tr>
<th>Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 a.m.</td>
<td><strong>MSCI Taiwan Index related Futures</strong>&lt;br&gt;9th - 10th min After cutoff</td>
</tr>
<tr>
<td>8:45 a.m. &amp; 12:30 p.m.</td>
<td><strong>HSI, HHI, MHI, MCH and HTI Futures</strong>&lt;br&gt;24th - 25th min After cutoff</td>
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</tbody>
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<th>Session</th>
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<td>Pre-Open Allocation</td>
<td>• Current mechanism to cutoff at 11th and 26th min respectively</td>
</tr>
<tr>
<td>Random Cutoff</td>
<td>• Current mechanism to cutoff at 13th and 28th min respectively</td>
</tr>
<tr>
<td>Open Allocation</td>
<td>• No order action is allowed&lt;br&gt;• Orders are matched at the COP according to order type, price and time priority</td>
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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
- **Morning T Session**
  - Multiple triggers with 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\(^1\)

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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 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)
<table>
<thead>
<tr>
<th>Item</th>
<th>Reminder</th>
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<tbody>
<tr>
<td>1</td>
<td><strong>Complete the online registration form before 19 February 2021 for the Practice Session</strong>&lt;br&gt;<strong>Circular for Practice Session:</strong>&lt;br&gt;<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>&lt;br&gt;<strong>Online Registration Form</strong>&lt;br&gt;<a href="https://events.hkexgroup.com/en/practice-sessions-for-vcm-and-pos-enhancements-27-feb-2021-5a326FDHT3j/overview">https://events.hkexgroup.com/en/practice-sessions-for-vcm-and-pos-enhancements-27-feb-2021-5a326FDHT3j/overview</a></td>
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Thank You

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