Part B Consultation Questions – Volatility Control Mechanism

Please indicate your preference by checking the appropriate boxes and provide reasons to support your views. Where there is insufficient space, please attach additional pages as necessary.

1. Do you support the introduction of an instrument-level VCM based on a dynamic price limit model in Hong Kong?

   ☐ Yes

   ☐ No

   Please give reasons for your view.

We do not have any evidence on the impact of VCMs so we will adddress our responses to Part C. The responses are our own representations and should not be construed as a representation from our respective universities.

2. Do you agree that the proposed VCM model should only be applied to the HSI and HSCEI constituent stocks in the securities market?

   ☐ Yes

   ☐ No

   Please give reasons for your view.

3. Do you agree that the proposed VCM model should only be applied to the HSI, HHI, MHI & MCH (spot month and the next calendar month) index futures in the derivatives market?

   ☐ Yes

   ☐ No

   Please give reasons for your view.

4. Do you agree that the market should have a 15-minute uninterrupted trading period before the end of the last continuous trading?

☐ Yes

☐ No

Please give reasons for your view.

5. Do you agree with the proposed reference price for the <u>securities</u> market, namely the price of last trade 5 minutes ago? If not, what would you prefer?

☐ Yes

☐ No, I would prefer: ____________________

Please give reasons for your view.

6. Do you agree with our proposed reference price for the <u>derivatives</u> market, namely the price of last trade 5 minutes ago? If not, what would you prefer?

☐ Yes

☐ No, I would prefer: ____________________

Please give reasons for your view.

7. Do you agree with the proposed triggering level for the <u>securities</u> market, namely <u>10%</u>

from the reference price across the proposed instruments covered by the VCM? If not, what level would you prefer?

☐ Yes

☐ No, level that I would prefer: ______________________________

Please give reasons for your view.

8. Do you agree with the proposed triggering level for the derivatives market, namely 5% from the reference price across the proposed instruments covered by the VCM? If not, what level would you prefer?

☐ Yes

☐ No, level that I would prefer: ______________________________

Please give reasons for your view.

9. Do you agree that a maximum of two VCM triggers per trading session per instrument should be imposed to minimise market interruption?

☐ Yes

☐ No, I would prefer: ______________________________

Please give reasons for your view.

10. Do you support trading within a price limit during the cooling-off period? If not, do you prefer another approach?

☐ Yes

☐ No, another approach that I prefer: ______________________________

Please give reasons for your view.

11. After the cooling-off period, do you support resuming the same dynamic price limit monitoring mechanism (i.e. ±10% (±5%) from the last trade 5 minutes ago in the securities (derivatives) market)? If not, do you prefer another approach?

☐ Yes

☐ No, I would prefer: ______________________________

Please give reasons for your view.

12. Do you have any other suggestions on enhancing the resumption procedures?

13. Do you agree that the duration of the cooling-off period should be 5 minutes for both the securities and derivatives markets? If not, what would you prefer and why?

☐ Yes

☐ No, I would prefer: ______________________________

Please give reasons for your view.

14. Do you agree with the additional market data dissemination for the proposed VCM model? If not, what would you propose and why?

☐ Yes

☐ No, I would propose: ____________________

Please give reasons for your view.

15. If a VCM is triggered for a given instrument, should trading of related instruments (e.g. futures contract of different contract months) on the same underlying continue as normal?

☐ Yes

☐ No

Please give reasons for your view.

16. If a VCM is triggered for a given instrument, should trading of derivatives (e.g. single stock options or warrants) of that instrument continue as normal?

☐ Yes

☐ No

Please give reasons for your view.

17. Do you have any other comments on the VCM proposal?

Part C Consultation Questions – Closing Auction Session

18. Do you support the introduction of the new CAS model in the Hong Kong securities market?

☒ Yes

☐ No

Please give reasons for your view.

The proposed implementation incorporates the majority of features that our research has found to be beneficial. These features include a randomised closing time, volatility stabilising price limits, and restrictions on the cancellation of orders prior to the closing auction. One feature we believe should be changed is the dissemination of the IEP. Our research indicates that such a feature encourages gaming and is detrimental to the efficiency and integrity of the market. More details of our research finding are provided in the attached research working paper.

19. Do you agree that the new CAS model should only be applied to the major index constituent stocks (i.e. Hang Seng Composite LargeCap Index and Hang Seng Composite MidCap Index constituents as well as other Stock Connect Securities for Southbound trading)?

☐ Yes

☒ No

Please give reasons for your view.

Our evidence draws on ALL stocks on 20 markets. Our evidence suggests that all securities (regardless of size) benefit from the introduction of a closing batch mechanism.

20. Do you agree that the new CAS model should be applied to ETF? If yes, which type of ETF should be applied?

☒ Yes

☒ (i) Apply to all ETFs

☐ (ii) Only apply to ETFs with Hong Kong stocks as underlying

☐ No

Please give reasons for your view.

ETFs are also susceptible to closing price manipulation. As such, they should also be included in the CAS.

21. Do you agree that at a later stage, the new CAS model should be expanded to other equity securities and funds as proposed? If so, when should the CAS be rolled out to these securities and funds?

☒ Yes, roll out time should be: ______________________

☐ No

Please give reasons for your view.

Staggering the introduction of the CAS will facilitate the collection of evidence using a difference-in-differences econometric approach. More details are available upon request.

22. Do you agree that that the new CAS model should exclude structured products, equity warrants and debt securities?

☐ Yes

☒ No

Please give reasons for your view.

While manipulation is not as likely on derivative products or debt securities, the improvements seen in pricing efficiency are likely to also apply to these products. Most developed markets (including Australia) utilise a closing meachnism for options, warrants and debt securities. A closing mechanism (such as the CAS) is preferred to no closing mechanism (i.e., last traded price) for these products.

23. Do you support introducing a price limit during the CAS?

☒ Yes

☐ No

Please give reasons for your view.

Price limits prevent securities from being manipulated outside of those limits. However, our evidence indicates that extensions to the closing auction are very effective at reducing manipulation, lowering spreads at the close, increasing overall traded value across the day and reducing volatility at the close. This is consistent with evidence provided by Ariely, Ockenfels and Roth (2005) on sniping in internet auctions. Comerton-Forde and Rydge (2006b) argue that price extensions provide additional opportunities for traders to enter counter-manipulative orders, increasing the costs of manipulation.

24. Do you support a price limit of 5% during the Order Input Period for all CAS Securities?

☒ Yes

☐ No

Please give reasons for your view.

5% appears to be a reasonable level, subject to our views above.

25. Do you agree that a further price limit within the best bid and best ask should be applied during the No-Cancellation Period and Random Closing Period?

☒ Yes

☐ No

Please give reasons for your view.

26. Do you agree that at-auction limit orders should be allowed throughout the CAS?

☒ Yes

☐ No

Please give reasons for your view.

Many participants want to trade at the closing price. This can be to mitigate the inventory imbalances, or because it is useful as a reference price. Many exchanges allow these types of orders and they can facilitate larger "block style" trading without needing to walk the orderbook, minimising volatility at the close.

27. Do you think short selling orders with a tick rule should be allowed during the CAS?

☒ Yes

☐ No

Please give reasons for your view.

We do not see any reason short-sales should be specifically prohibited from the closing auction.

28. If short selling order is to be allowed, should it be at or higher than the reference price?

☐ Yes

☒ No

Please give reasons for your view.

We have no evidence to suggest that short selling at the close is undesirable or should be restricted.

29. Do you agree that order amendment and cancellation should be disallowed during the No-Cancellation Period and Random Closing Period?

☒ Yes

☐ No

Please give reasons for your view.

We find that the ability to ammend and cancel orders during the pre-close period increases volatility, pricing error, idiosyncratic volatility, spreads at the close and spreads in the last two hours of the trading day. We also find increases in manipulation when traders are free to ammend or cancel their orders during the pre-close period. This result is indicative of traders' ability to engage in gaming activity by modifying or cancelling manipulative orders during the pre-close period.

30. Do you agree that random closing be adopted in the CAS to prevent gaming?

☒ Yes

☐ No

Please give reasons for your view.

We find that randomising the closing time reduces volatilty, pricing error, spreads and the incidence of manipulation. It also significantly increases the value traded throughout the trading day. This suggests that participants are more willing to trade in a randomised close since manipulative orders have increased costs of potential execution, resulting in increased investor confidence. Randomising the closing time also forces legitimate traders to enter their true orders earlier. This is consistent with the findings of Malaga, Porter, Ord and Montano (2010) who show that randomised closing times in internet auctions deter manipulation of the close.

31. If random closing is to be adopted, should it be over a period of up to 2 minutes or would you prefer a different duration?

☒ Up to 2 minutes

☐ A different duration: ______________________

Please give reasons for your view.

Many international auctions use much shorter randomisation periods. These period typically range from 15-60 seconds. A period of up to 2 minutes would put the HKEx on the longer side of its' international contemporaries. However, this should serve to minimise the potential for manipulation, ensuring only legitimate orders remain in the book at the time of clearing.

32. In the absence of a final IEP, do you agree that the reference price should be used as the closing price and for trade matching?

☒ Yes

☐ No

Please give reasons for your view.

33. What would be the preferred duration of the CAS?

(i) Same as the proposed model, i.e. 7-minute Order Input Period to end the CAS at 16:12

(ii) 5-minute Order Input Period to end the CAS at 16:10

(iii) Others, please specify:

☒ Approach (i)

☐ Approach (ii)

☐ Approach (iii), please specify: ____________________

Please give reasons for your view.

34. Do you agree that some features of the new CAS model may also be beneficial for the POS and/or the Trading Halts? If so, which feature(s)?

☒ Yes, the feature(s): Randomised open, no ammend/cancel period

☐ No

Please give reasons for your view.

These features will complement an opening/trading halt and will prevent similar undesirable activity.

35. Do you agree that any enhancements for POS and/or the Trading Halts should be implemented later rather than during the introduction of the new CAS?

☒ Yes

☐ No

Please give reasons for your view.

Seperation of these changes by at least 6 months will allow enough time for evidence to be collected on the impact of the CAS introduction, without tainting the effects with other changes. This should be considered for ALL major market design changes.

36. Do you foresee any issues with your day end processing such as margin calls in the cash market due to the extended trading time for 12 minutes? If yes, how may the issue be resolved?

☐ Yes, suggested solution: ______________________________

☐ No

Please give reasons for your view.

NA

37. To maintain the 45 minutes break before the start of AHFT, do you agree that the start time of AHFT to be changed from 17:00 to 17:15? If not, what time do you prefer?

☐ Yes

☐ No, time that you prefer: ______________________________

Please give reasons for your view.

NA

Part D Consultation Questions – Implementation Approach and Timeline

38. Which implementation approach for the securities market would you prefer:

(i) the development and testing of the VCM, CAS and Trading Halts functionalities are to be implemented together on the AMS/3.8 platform and be rolled out one by one; or

(ii) (1) the development, testing and rollout of VCM and CAS are to be implemented together on the AMS/3.8 platform, and (2) Trading Halts proposal is to be introduced as part of the Exchange's next-generation trading system, the Orion Trading Platform-Cash; or

(iii) Others, please specify.

☐ Approach (i)

☐ Approach (ii)

☒ Approach (iii), please specify: New changes may be developed together, however at least 6 months should be imposed between market design changes

Please give reasons for your view.

Seperating the changes to the market in time will provide an opportunity for academics to study the impacts of each change, without cross contamination of the effects. Ideally, the change would be rolled out to 1/2 of the stocks (chosen at random) today and the other 1/2 in 3-6 months. If the two sample groups contain securities of all sizes (ie small, medium and large) this would allow for a difference-in-differences approach to examine the specific impact of the change. However, such a rollout is unusual. As such, seperating the changes temporally is of the utmost importance, otherwise all that can be said of the changes is their cumulative impact. This does not allow for the identification of which of them was beneficial or even if one of them was harmful. More details are available upon request.

39. What should be the implementation priority among the three initiatives (i.e. VCM, CAS and Trading Halts) in the securities market?

Please give reasons for your view.

CAS > VCM > Trading Halts

40. How long do you need to prepare for the rollout starting from the issuance of the specification for each initiatives:

(i) VCM:

☐ a). under 3 months;

☐ b). 4-6 months;

☐ c). 7-12 months

☐ d). >12 months

Please give reasons for your view.

NA

(ii) CAS:

☐ a). under 3 months;

☐ b). 4-6 months;

☐ c). 7-12 months

☐ d). >12 months

Please give reasons for your view.

NA

- End -