CONSULTATION CONCLUSIONS

PROPOSAL FOR INTRODUCTION OF VOLATILITY CONTROL MECHANISM IN THE SECURITIES AND DERIVATIVES MARKETS AND CLOSING AUCTION SESSION IN THE SECURITIES MARKET

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EXECUTIVE SUMMARY

1. In January 2015, Hong Kong Exchanges and Clearing Limited (HKEx) issued a market Consultation Paper (Consultation Paper) on the proposed introduction of a Volatility Control Mechanism (VCM) in the securities and derivatives markets and a Closing Auction Session (CAS) in the securities market in Hong Kong.

2. The Consultation Paper proposed two market microstructure initiatives with the following objectives:

   - A VCM to safeguard the market's integrity by addressing potential systemic risks arising from advances in trading technology (such as "Flash Crash" and algorithmic trading errors) and from the inter-connectedness of the securities and derivatives markets, particularly with respect to benchmark index products; and

   - A CAS to improve the formation of closing prices in the Hong Kong securities market, and to enable trading at those closing prices.

3. The consultation received a good number of responses from a broad spectrum of key users of the securities and derivatives markets in Hong Kong, including the following:

   - 41 HKEx Exchange Participants (EPs) contributing 65% and 74% of 2014 securities and derivatives market turnover respectively;

   - 15 asset management companies with aggregate global assets under management (AUM) of over US$15 trillion[1]. They are major international and local institutional investors such as Mandatory Provident Funds (MPFs) serving millions of investors in Hong Kong and managers of Exchange Traded Funds (ETFs) listed in Hong Kong;

   - The following 10 major industry associations and key market representatives representing both retail and institutional interest in the Hong Kong market, such as brokers, investors and other market participants based in Hong Kong, the Mainland and overseas:

     - Alternative Investment Management Association (AIMA)
     - Asia Securities Industry & Financial Markets Association (ASIFMA)
     - Hong Kong Investment Funds Association (HKIFA)
     - Hong Kong Securities Association (HKSA)
     - Hong Kong Securities & Futures Professionals Association (HKSFPA)
     - Hong Kong Securities Professionals Association (HKSPA)
     - Quorum 15 (Q15)
     - The Hong Kong Society of Financial Analysts (HKSFA)
     - The Institute of Securities Dealers (ISD)

[1] For comparison, the AUM for the fund management business in Hong Kong was HK$16 trillion at the end of 2013 based on a survey conducted by the SFC (Source: http://www.sfc.hk/edistributionWeb/gateway/EN/news-and-announcements/news/doc?refNo=14PR84)

- A Legislative Council member representing the Financial Services functional constituency in the Hong Kong Legislative Council

- 5 other corporate entities – 2 major index companies, 2 trading firms and 1 bank; and

- 310 individuals, most of them being local retail investors in Hong Kong[2] or HKEx EP staff.

4. In most market segments, the majority of respondents strongly supported the introduction of a VCM in the securities and derivatives markets. These include 34 out of 41 responding HKEx EPs which together represent 57% and 67% market share by turnover in the securities and derivatives markets respectively, 13 out of 15 responding asset management companies, 9 out of 10 industry associations and key market representatives, all 5 respondents from other corporate entities, and 20 individual respondents. 7 HKEx EPs, 1 industry association and 285 individual respondents opposed the introduction of a VCM. We note that over 80% of the individual respondents opposing the VCM are either unverifiable or members of a single industry association. Most of their responses are also either identical or do not provide reasons for opposing the proposals.

5. In most market segments, the majority of respondents also strongly supported the introduction of a CAS in the securities market. These include 35 out of 41 responding HKEx EPs which together represent 61% market share by turnover in the securities market (CAS is only applicable for the securities market), all 15 responding asset management companies, 7 out of 10 industry associations and key market representatives, all 5 respondents from other corporate entities, and 15 individual respondents. 4 HKEx EPs, 2 industry associations and 293 individual respondents opposed the introduction of a CAS. Again, as in the case of the VCM, majority of the individual respondents opposing the CAS are either unverifiable or members of a single industry association. Most of their responses are also either identical or do not provide reasons for opposing the proposals.

6. Having carefully considered the responses, HKEx concludes that there is substantial market support for the introduction of a VCM and a CAS in the Hong Kong market. In response to market feedback received, we will further enhance the proposed VCM and CAS model with fine-tuning of a number of features. These fine-tunings include the following:

(a) VCM:

- Maximum number of VCM triggers: reduced from the proposed 2 triggers per trading session to 1 trigger per trading session; and

- Applicable period of VCM: VCM would be excluded from the first 15 minutes of the morning and afternoon Continuous Trading Session (CTS), in addition

[2] According to the Retail Investor Survey 2014 conducted by HKEx, there are about 2.3 million local retail investors in Hong Kong.

to the last 15 minutes of the afternoon CTS per consultation.

(b) CAS:

- Consider rolling out of short selling subject to a tick rule in Phase 2 of the CAS (instead of in Phase 1);

- End the CAS at 16:10 instead of 16:12 by shortening the Order Input Period to 5 minutes (from 7 minutes); and

- Apply the CAS to all Exchange Traded Funds (ETFs) instead of ETFs with Hong Kong stocks as underlyings starting from Phase 1 (instead of from Phase 2).

7. Respondents had divergent views on the appropriate level of price limit to be applied in the Order Input Period of the CAS. While a few HKEx EPs, industry associations and key market representatives suggested a lower price limit of 2% to 3% due to price volatility concerns, many other respondents proposed a price limit of 7.5% to 10% or even no price limit for better certainty in order completion. HKEx acknowledge respondents' concerns on price volatility and would address them in the CAS implementation. However, based on market feedback and past trading statistics, if the price limit is too stringent, the utility of the CAS would be reduced. A limit that is too tight would create liquidity and price discovery issues in the CAS, particularly on index rebalancing days. On balance, HKEx believes that its proposed price limit (5%) is appropriate and should be implemented in Phase 1. It can be reviewed subsequently based on experience.

8. The thrust of respondents' feedback was that the CAS and the VCM should have priority over Trading Halts (TH)[3], were which covered in a consultation paper and consultation conclusions published in September 2012 and March 2013 respectively. Accordingly, for the securities market, HKEx will develop and test the VCM and CAS together on the AMS/3.8 trading system to minimize the market's implementation effort, and then roll out them sequentially (CAS Phase 1 first and then VCM) to reduce migration risk. TH is to be introduced as part of our new Orion Trading Platform – Cash (OTP-C) infrastructure and the platform is tentatively scheduled to be rolled out in 2017 or later. Respondents also suggested that the auction mechanism of the Pre-opening Session (POS) and TH should be enhanced by using some features of the new CAS after it is introduced. Therefore, it seems logical to implement TH after the market is familiar with the new CAS.

9. As proposed in the Consultation Paper, the CAS will be rolled out in two phases. Phase 1 is tentatively set to include all the Hang Seng Composite LargeCap and MidCap index constituent stocks, the H shares which have corresponding A shares listed on the exchanges in Mainland China and all ETFs. The list will be finalised and published before the launch of Phase 1. Phase 2 will be rolled out after a review, tentatively 6 months after Phase 1, and will include all equities securities and funds

[3] HKEx plans to introduce Trading Halts to allow inside information to be adequately disseminated and assessed by the market in a timely manner during trading hours. Additional TH halt information is available in the news release at: http://www.hkex.com.hk/eng/newsconsul/hkexnews/2013/130315news.htm.

not covered in Phase 1.

10. Adequate preparation lead time of 12 months will be given to the market. For the securities market, the phased rollout of the CAS and then VCM on the AMS/3.8 is tentatively scheduled to start from the third quarter of 2016, subject to the relevant rule amendments and market readiness. For the derivatives market, the rollout of VCM on HKATS is tentatively set for the last quarter of 2016, also subject to the required rule amendments and market readiness. The implementation details will be announced in due course.

PART A:

INTRODUCTION

CHAPTER 1: CONSULTATION PROCESS AND HANDLING OF RESPONSES RECEIVED

Consultation Process

11. On 16 January 2015, a Consultation Paper on the proposed introduction of a VCM in the securities and derivatives markets and a CAS in the securities market was published. On the same date, HKEx held a press conference, and issued a news release and circulars to invite the market to provide feedback to the proposals.

12. HKEx then conducted a series of external briefings and meetings to explain the VCM and CAS consultation. These included:

- Briefing sessions to the broker and investor community;
- Meetings with local and international industry associations and key market representatives;
- Media interviews; and
- Individual meetings with brokers and investors.

Handling of Consultation Responses

13. The consultation period closed on 10 April 2015. The consultation received a good number of responses from a broad spectrum of key market users from various segments of the securities and derivatives markets in Hong Kong, comprising 41 HKEx EPs, 15 asset management companies, 10 industry associations and key market representatives, 5 other corporate entities and 310 individual respondents. 123 responses were late submissions received and accepted in the week after the consultation closure.

14. For each of the responses received, HKEx tried to verify the identity of the respondent to the extent practicable to ensure that the responses were legitimate ones from market participants. The identities of all HKEx EPs, asset management companies, industry associations and key market representatives, and other corporate entities were successfully verified. The identities of 172 out of 310 individual respondents were also successfully verified while the remaining 138 individual respondents could not be verified[4]. Nonetheless, in order to ensure all market views were heard, all responses received, including the unverifiable individual responses and the late submissions, have been included in the response analysis and considered in drawing the consultation conclusions.

[4] For example, in some cases invalid contact details were provided and in many other cases, when HKEx managed to get in touch with someone by using the contact details provided, the person denied that he or she had submitted the consultation response.

Representativeness of Respondents' Views Received

15. The responses received represent a good cross-section of users of the securities and derivatives markets.

- The 41 HKEx EPs contribute an aggregate market share of 65%[5] and 74%[6] of trading in the securities and derivatives markets respectively;

- The 15 asset management companies represent major international and local institutional investors in Hong Kong. They are part of groups that have aggregate global assets under management (AUM) of over US$15 trillion[7];

- The 10 industry associations and key market representatives broadly represent both retail and institutional segments in Hong Kong, covering brokers and investors in Hong Kong, Mainland China and overseas;

- The 5 other corporate entities are major index providers, trading firms and a bank with a presence in Hong Kong; and

- The 310 individual responses are mainly from local retail investors or HKEx EP staff.

16. The first 4 categories are collectively termed 'corporate respondents' as their responses represent the views of a company or an association. Through our normal response verification process, we were able to verify the identities of all corporate respondents. On the other hand, we found that over 80% of the 310 individual respondents are either unverifiable or are members of a single local industry association. In terms of the content of the submissions, almost all corporate respondents provided independent submissions as well as detailed rationale for their feedback. For the individual respondents, most of their submissions provided feedback which is identical or based on a standard template, or did not provide any reasons for their feedback. Accordingly, although the total number of submissions from individual respondents is higher than that from other respondent categories, the views expressed by these respondents may only represent a certain segment of the market. We have nonetheless included their responses in the consultation response analysis but due consideration has been given to their representativeness and the qualitative substance of their responses.

Analysis of the Consultation Responses

17. We have taken into consideration all submissions received, including those late, unverifiable and / or identical submissions in our analysis, as all represent certain views of the market.

[5] Based on the turnover statistics of securities market in 2014.
[6] Based on the turnover statistics of HSI Index futures in derivatives market in 2014.
[7] For comparison, the AUM for the fund management business in Hong Kong was HK$16 trillion at the end of 2013 based on a survey conducted by the SFC (Source: http://www.sfc.hk/edistributionWeb/gateway/EN/news-and-announcements/news/doc?refNo=14PR84)

18. The review of the responses incorporates a qualitative (and necessarily judgmental) assessment and is not purely quantitative, so that we may properly weigh and balance the views received from respondents both for and against the proposals put forward in the consultation. For example, the feedback of an industry association will likely be considered differently than that from an individual investor given the consensus-building and advocacy role of such entity. By the same token due weight has been given to responses submitted on behalf of multiple persons or institutions and the rationale for their positions.

19. It should be noted that not all respondents provided feedback to every question in the questionnaire, as some questions may not be relevant for some respondents due to the nature of their business. For example, the introduction of the CAS in the securities market may not be relevant to some derivatives market participants.

20. It should also be noted that a large number of responses which do not support the proposals either ignored or provided answers which are irrelevant to the remaining questions (which concern the details of implementation). As such, the number of responses for subsequent questions on the proposals and the number of relevant responses which have been taken into account for conclusion would naturally be smaller than the total number of respondents.

21. Our aim in publishing the Consultation Paper is to promote an informed, focused and coherent discussion of the proposals which are of great market interest and potential significance to Hong Kong market. While the consultation conclusions report summarises the main comments received, it also informs the market of the consultation conclusions, the rationale behind them, and accordingly the way forward for these proposals.

22. All original responses excluding responses which requested non-disclosure are published on the HKEx website in the interests of transparency. Respondent identities have been masked as appropriate in these responses as per their requests.

23. We would like to take this opportunity to thank all those who have shared with us their comments and views during the consultation process.

PART B:

VOLATILITY CONTROL MECHANISM (VCM)

CHAPTER 2: BACKGROUND AND CONSULTATION MODEL FOR VCM

Background

24. In view of the impact of technological changes on market integrity and efficiency, the International Organization of Securities Commissions (IOSCO) has issued guidance on implementing VCMs in trading venues, with the objective of preventing major trading incidents such as the Flash Crash seen in the US market. Many international exchanges have also implemented some form of VCM to contain systemic risk caused by extreme price movement. As a market operator, it is HKEx's statutory duty to safeguard market integrity in the context of changing market conditions.

25. Based on the IOSCO guidance, a VCM should address systemic risks arising from the inter-connectedness of securities and derivatives markets, particularly with respect to index products. Furthermore, a VCM model with a temporary cooling-off period (as proposed for the Hong Kong market) would be effective by allowing market participants to reassess their strategies and reset their algorithm parameters, as well as allowing the re-establishment of an orderly market during volatile market situations. Accordingly, the VCM model considered here should be distinguished from other models such as circuit breakers which halt market trading or static daily price limits which set a fixed price range for trading, as seen in some other markets.

26. Consideration has also been given to the type of VCM model that would be suitable for Hong Kong. Based on some preliminary discussions with the market prior to the consultation, a light-touch and simple model would be preferable for Hong Kong as the first step, since the VCM would be new to the market and participants and investors may not be familiar with such mechanisms.

27. Accordingly, HKEx has proposed a dynamic price limit VCM model for the securities and derivatives markets, which would trigger a cooling-off period in case of abrupt price volatility detected at the instrument level. This model is proposed because it is relatively simple and minimises market disruption.

28. It should be noted that the VCM will not be applicable in the After-Hours Futures Trading session in the derivatives market since there is already a static price limit in place.

29. In accordance with IOSCO's guidance, HKEx would focus on instruments that pose systemic risks arising from the inter-connectedness of securities and derivatives markets, particularly with respect to index products. Therefore, the VCM model is proposed to be applied to Hang Seng Index (HSI) and Hang Seng China Enterprises Index (HSCEI) constituent stocks in the securities market, and HSI, Mini-Hang Seng Index (MHI), H-Shares Index (HHI) and Mini H-Shares Index (MCH) (spot month and the next calendar month) futures contracts in the derivatives market.

VCM Model Proposed in the Consultation

30. The VCM model proposed in the consultation is set out below:

- During the CTS, order execution of each instrument subject to VCM (VCM Instrument) would be monitored against a dynamic price limit of ±10% (±5%) from the price of last trade 5 minutes ago[8] in the securities (derivatives) market.

- If the potential execution price falls outside the price limit, the order(s) triggering the VCM would be rejected[9], and a 5-minute cooling-off period would start immediately. The instrument would only be allowed to trade within a fixed price limit (the same price limit right as before the VCM trigger) during this cooling-off period. High bid and low ask orders (otherwise known as aggressive orders) violating the upper and lower price limits would also be rejected immediately during the cooling-off period. Passive orders may still be input and accepted in the trading system to allow building of liquidity.

- The same dynamic price limit monitoring mechanism (i.e. ±10% (±5%) from the last trade 5 minutes ago in the securities (derivatives) market) will resume after the cooling-off period. If there is no trading in the cooling-off period, the first trade can be executed without any price limit applied.

- For each VCM Instrument, there would be a maximum of two VCM triggers in a single trading session (Morning Session and Afternoon Session are counted as two separate trading sessions), with the VCM monitoring completely relaxed in that trading session upon expiry of the second cooling-off period.

- The VCM would not be in effect in the last 15 minutes of the last CTS[10] of the day to allow for efficient price discovery at market close and to avoid potentially preventing investors from closing out their positions and being forced to take overnight risks. After Hours Futures Trading (AHFT) in the derivatives markets would also be excluded from the VCM, as it already has a static price limit of ±5% from the last traded price in the day session.

- When there is a VCM triggered, trading of linked instruments or other instruments with the same underlying would continue and would not be affected.

8 This refers to the last traded price of the instrument five minutes prior to the current potential trade.

9 In some cases, the resting order(s) which are high bid / low ask orders would be deleted as well. Partial execution up to the price limit is allowed. Detailed specifications for different cases will be provided later.

10 The VCM monitoring would stop 20 minutes before the end of the last CTS as the duration of a cooling-off period is 5 minutes.

CHAPTER 3: COMMENTS AND RESPONSES ON VCM

31. In this chapter, we set out the key comments raised by the respondents and our responses on each of the areas being consulted upon.

Respondents from Most Market Segments Strongly Support the Introduction of the VCM

32. As the first and most important question on VCM, we asked whether respondents support our proposal to introduce an instrument-level VCM based on a dynamic price limit model in Hong Kong. (*Consultation Question 1*)

Comments Received

Category	Q1. Introduction of a instrument-level VCM based on dynamic price limit model	
	Support	Not Support
HKEx EPs • Representing securities market • Representing derivatives market	**34** • 31 (represent 57% market share) • 23 (represent 67% market share)	**7** • 6 (represent 8% market share) • 6 (represent 7% market share)
Asset management companies	**13**	**0**
Industry associations and key market representatives	**9**	**1**
Other corporate entities	**5**	**0**
Individuals	**20**	**285**

33. Respondents from most of the market segments supported the introduction of a VCM. There was support from 34 out of 41 HKEx EPs (representing 57% and 67% market shares in terms of turnover in the securities and derivatives markets respectively), 13 out of 15 asset management companies (the remaining 2 did not comment on the VCM), 9 out of 10 industry associations and key market representatives, all 5 other corporate entities and 20 individual investors.

34. The opposition to the VCM came from 7 HKEx EPs, 1 industry association and 285 individual respondents. However, as noted above, many of the individual respondents were unverifiable, provided identical responses, or did not cite any substantive reasons for opposing the proposals.

35. The large majority of respondents in favour of launching the VCM gave the following reasons:

a) In an automated trading environment, there is strong need to deal with extreme market conditions and trading errors, which potentially have knock-on and contagion effects;

b) A VCM can contain the impact, mitigate systemic risks and ensure market integrity should major trading incidents occur;

c) A VCM would ensure that Hong Kong is aligned with global industry best practice as other leading markets also have introduced similar mechanisms; and

d) It is sensible for HKEx as a market operator to take a central role in protecting the market, on top of the operational and risk controls implemented by individual market participants.

36. The respondents opposed to the VCM gave reasons including the following in their responses:

a) A VCM would hinder fundamental price movement and reduce volatility, and therefore would not benefit retail investors;

b) The VCM is new to the Hong Kong market and it should only be launched with some pilot implementation such that the market can collectively gain experience and review its effectiveness; and

c) There are some concerns that when a VCM is triggered, trading activities during the cooling-off period could be very low or non-existent. The lack of any trading activities would hinder or delay the margin call process.

Our Response

37. We are pleased to see the substantial market support from most market segments for the introduction of a VCM. Across a wide spectrum of market participants, there is a clear need for a VCM to deal with volatile market situations.

38. We would address the concerns raised by the opposing respondents in the following paragraphs.

39. *VCM would prevent fundamental price movement* – We acknowledge that in order to prevent disorderly trading, some level of trading interruption would be inevitable. However, special care has been taken in the proposed VCM design to minimise market interruption and to allow for price movement as much as possible. For example, a dynamic rather than a static reference price is proposed, the triggering level should not trigger the VCM too often based on past trading statistics, the VCM would not be applied in certain periods during which price discovery is particularly important, and a maximum number of triggers would be applied for each VCM Instrument in each trading session.

40. *VCM is new to Hong Kong and should be launched with a pilot implementation* – We do agree and the principle of introducing a VCM which is simple and light-touch as our first important step for Hong Kong is consistent throughout this Consultation Conclusions report. The VCM can be reviewed and fine-tuned subsequently based on the experience of the Hong Kong market.

41. *It would hinder the margin call process* – Based on feedback from most HKEx EPs which have a margin call process, this is not a concern for them. Nonetheless, the proposed model has been designed in such a way (e.g. a maximum number of triggers and certain periods of non-interrupted trading) that interruption to normal trading and

related processes such as margin calls would be minimised.

Conclusion

42. Based on the feedback received and the proposed VCM is widely supported by the HKEx EPs which account for a significant market share in our markets, asset management companies, industry associations and key market representatives, and other corporate entities, we conclude that there is sufficient support for introducing VCM and we will proceed with the introduction of an instrument-level VCM in both the securities and derivatives markets.

43. A few features proposed in the Consultation Paper would be fine-tuned based on suggestions of the respondents.

44. For the remaining analysis of the VCM as described in paragraphs 45 to 103, respondents who did not respond to a particular question are excluded from the relevant statistical analysis shown below. For convenience of analysis we have grouped the statistics of the corporate respondents separately from those of the individual respondents. Due weight has been be given to the views of the corporate respondents due to their larger contribution to the market.

Applicable Instrument Types

45. We proposed that the VCM model should be applied only to HSI and HSCEI constituent stocks in the securities market *(Consultation Question 2)* and to HSI, HHI, MHI & MCH (spot and next calendar month) index futures contracts in the derivatives market. *(Consultation Question 3)*

Comments Received

Category	**Q2. VCM apply to HSI and HSCEI constituent stocks (securities market)**		**Q3. VCM apply to HSI, HHI, MHI & MCH (spot month and next calendar month) index futures contracts (derivatives market)**	
	Support	**Not Support**	**Support**	**Not Support**
Corporates	**30 (50%)**	**30 (50%) (should apply to more securities)**	**31 (58%)**	**22 (42%) (should apply to more contracts)**
HKEx EPs	17	19	16	17
Asset management companies	7	5	8	4
Industry associations and key market representatives	6	1	6	1
Other corporate entities	0	5	1	0
Individuals	**1 (1%)**	**186 (99%)**	**5 (3%)**	**181 (97%)**

46. About half of the corporate respondents supported our proposed scope of instruments, and another half of the corporate respondents would prefer expanding to more or all securities and derivatives contracts. They also commented that different triggering levels would be required if the set of instruments is to be expanded. A few of these respondents also clearly stated that they would like the current proposal to be

implemented first with expansion to other instruments at a later stage.

47. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

48. In accordance with the IOSCO guidance, the VCM in Hong Kong should first and foremost address systemic risks caused by the interconnectedness of the securities and derivatives markets, in particular with respect to benchmark index products. These proposed instruments are the ones which may pose the highest systemic risks in our market. Extending the VCM to other less-liquid instruments which are not as systemically important would require a more sophisticated model (e.g. one with different triggering levels based on liquidity, product type and price) and would likely cause many more trading interruptions.

49. It is our belief that we should strike a balance between market protection, model complexity and degree of trading interruptions especially as VCM introduction would be new to the Hong Kong market.

Conclusion

50. VCM will be applied to the set of VCM Instruments proposed in the Consultation Paper, i.e., HSI and HSCEI constituent stocks in the securities market, and HSI, MHI, HHI and MCH (spot month and the next calendar month) index futures contracts in the derivatives market.

Applicable Trading Session

51. We proposed that there would be a 15-minute uninterrupted trading period before the end of the last CTS of the day, so that investors could unwind their day positions and avoid unwanted overnight risks. *(Consultation Question 4)*

Comments Received

Category	Q4. 15-minute uninterrupted trading period before end of last CTS	
	Support	**Not Support**
Corporates	**49 (80%)**	**12 (20%)**
HKEx EPs	32	6
Asset management companies	6	6
Industry associations and key market representatives	7	0
Other corporate entities	4	0
Individuals	**8 (4%)**	**171 (96%)**

52. A large majority of corporate respondents (80%) representing both institutional and retail interests supported our proposed model and agreed with our rationale. However, a smaller number of HKEx EPs and asset management companies felt that the

uninterrupted period would not be necessary as VCM protection should not stop during any stage of CTS.

53. Most individual respondents were against our proposal and did not give reasons for their responses.

54. During the consultation period, some comments were raised by a number of undisclosed market participants that unwarranted trading interruptions could be caused by the VCM at the beginning of the CTS. This period was important for price discovery and price volatility is normally higher after a period of non-trading for market to absorb market information. Accordingly, VCM should also be excluded at the beginning of the CTS.

Our Response

55. We welcome the majority support from the market for our proposal and would adopt the 15-minute uninterrupted trading period before the end of the afternoon CTS. To mitigate the concern about trading interruption at the start of the CTS due to large price volatility resulting from normal price discovery, we are of the view that VCM application should also exclude the first 15 minutes of the CTS (both morning and afternoon sessions) so as to allow users to react to market information after a trading break.

Conclusion

56. We will not apply the VCM to **(1) the first 15 minutes of the morning and afternoon CTS to allow free price discovery at the market open**; and (2) the last 15 minutes of the last CTS of the day to allow investors to unwind their day positions and avoid taking overnight risks.

Reference Price

57. We proposed that the reference price for both securities and derivatives markets to be the price of the last trade 5 minutes ago, this being a dynamic price capturing both the magnitude and speed of price changes of individual instruments. *(Consultation Questions 5 and 6)*

Comments Received

Category	Q5. Reference price be price of last trade 5 minutes ago (securities market)		Q6. Reference price be price of last trade 5 minutes ago (derivatives market)	
	Support	**Not Support**	**Support**	**Not Support**
Corporates	**48 (79%)**	**13 (21%)**	**43 (75%)**	**14 (25%)**
HKEx EPs	27	12	24	12
Asset management companies	12	0	11	1
Industry associations and key market representatives	7	0	7	0
Other corporate entities	2	1	1	1
Individuals	**8 (4%)**	**171 (96%)**	**7 (4%)**	**172 (96%)**

58. The large majority of corporate respondents (79% and 75% respectively) agreed with our proposed dynamic reference price for the securities and derivatives markets.

59. Most individual respondents were against our proposal and did not give reasons for their responses.

60. A number of HKEx EPs and asset management companies suggested using an average, median, or static reference price (e.g. previous closing price) instead of a single dynamic reference price. Some suggested a more recent dynamic price (e.g. last trade 1 minute ago).

Our Response

61. We are encouraged by the support of the large majority of respondents for our proposed model and believe that the proposed reference price is suitable in capturing both the magnitude and speed of price changes of individual instruments. Some other suggested prices such as an average price may also be effective in detecting trading anomalies but they would add model complexity and have system latency impact.

Conclusion

62. We will proceed with the proposal to use the price of the last trade 5 minutes ago as the reference price.

Triggering Level

63. We proposed the triggering level to be 10% from the reference price for the securities market, and 5% from the reference price for the derivatives market, across the proposed instruments covered by the VCM. *(Consultation Questions 7 and 8)*

Comments Received

Category	Q7. Triggering level be 10% from reference price (securities market)		Q8. Triggering level be 5% from reference price (derivatives market)	
	Support	Not Support	Support	Not Support
Corporates	**51 (84%)**	**10 (16%)**	**42 (74%)**	**15 (26%)**
HKEx EPs	33	6	22	14
Asset management companies	9	3	11	1
Industry associations and key market representatives	6	1	7	0
Other corporate entities	3	0	2	0
Individuals	**8 (4%)**	**179 (96%)**	**5 (3%)**	**181 (97%)**

64. The majority of corporate respondents (84% and 74% respectively) supported our proposed triggering levels for the securities and derivatives markets.

65. Most individual respondents were against our proposal and did not give reasons for their responses.

66. A number of HKEx EPs and asset management companies suggested a lower threshold of less than 10% for the securities market. On the other hand, a few suggested a wider triggering level of 20% or 25%. A number of respondents suggested the same triggering level for both markets for consistency.

Our Response

67. We welcome the broad support from the market for our proposed triggering levels. For the securities market, the alternative approach of applying different triggering levels for different products or different price ranges has been considered in the past but is not preferred as it introduces additional complexity and may cause market confusion.

68. For the derivatives market, a lower triggering level than that of the securities market is proposed as the applicable instruments are at the basket / index level and only the spot and next calendar month contracts are in scope. A low percentage change in the price of an index futures contracts would already imply a much bigger market impact than the same percentage change in the price of individual stocks.

Conclusion

69. We will proceed with the proposal to adopting a triggering level of 10% from the reference price for the securities market, and 5% from the reference price for the derivatives market.

Maximum Number of VCM Triggers

70. We proposed that a maximum of two VCM triggers per trading session per instrument (a maximum of four triggers per trading day) be imposed to minimise market

interruption. *(Consultation Question 9)*

Comments Received

Category	Q9. Maximum of two VCM triggers per trading session per instrument	
	Support	**Not Support**
Corporates	**30 (48%)**	**32 (52%)**
HKEx EPs	19	19
Asset management companies	5	7
Industry associations and key market representatives	2	6
Other corporate entities	4	0
Individuals	**3 (2%)**	**183 (98%)**

71. The feedback was divided with 48% of corporate respondents agreeing with our proposal of a maximum of two VCM triggers per trading session (four per trading day), whilst 52% of corporate respondents opposed with mixed counter-proposals (some preferred more, and some preferred fewer).

72. Those who supported believed a maximum number of two triggers per trading session would minimize interruption to the market whilst serving to alert the market to the trading of a particular security / futures contract.

73. Some respondents, including four industry associations and key market representatives, one HKEx EP and one asset management company, proposed a maximum of one trigger per trading session / per day for minimum interruption to the market, and suggested that one trigger can already alert the market to possible trading anomalies.

74. Other respondents disagreeing to the proposals suggested more or unlimited triggers, suggesting that VCM protection in principle should not be limited.

75. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

76. We recognise the mixed feedback but at the same time note the strong preference of some key market participants representing retail interests to reduce the maximum number of triggers. Those respondents opposing the VCM also shared the concern that VCM would be disruptive to market trading. Whilst it is difficult to reach market consensus on this particular issue, we believe that a light-touch and less interruptive model is preferable as the Hong Kong market has not experienced a VCM before. Over time when the market is more familiar with the VCM mechanism, multiple triggers may be considered to provide the market with greater protection.

Conclusion

77. We will limit the VCM trigger to a maximum of one trigger per instrument per trading session (i.e. a maximum of two triggers per trading day) at this stage, subject to further review after implementation. Flexibility will be built in HKEx's systems in case multiple triggers would be considered in the future.

Cooling-off and Resumption Procedures

78. We proposed that when a VCM is triggered, a cooling-off period would start and trading could continue but only within certain price limits. *(Consultation Question 10)* We also proposed that the same dynamic price limit monitoring mechanism (i.e. ±10% (±5%) from the last trade 5 minutes ago in the securities (derivatives) market) be resumed after the cooling-off period. *(Consultation Question 11)* We also asked whether respondents have any other suggestions on enhancing the resumption procedures. *(Consultation Question 12)*

Comments Received

Category	Q10. Trading within a price limit during the cooling-off period		Q11. Resuming dynamic price limit monitoring mechanism after the cooling-off period	
	Support	Not Support	Support	Not Support
Corporates	**51 (82%)**	**11 (18%)**	**48 (80%)**	**12 (20%)**
HKEx EPs	32	7	31	7
Asset management companies	9	3	10	2
Industry associations and key market representatives	6	1	5	2
Other corporate entities	4	0	2	1
Individuals	**4 (2%)**	**182 (98%)**	**5 (3%)**	**182 (97%)**

79. The majority of corporate respondents (82%) supported our proposal of trading within a price limit during the cooling-off period, and resume the dynamic price limit monitoring mechanism after the cooling-off period. Respondents acknowledged that the proposed model would be less disruptive to normal market behaviour.

80. At the same time a significant number of corporate respondents suggested that trading should be suspended to allow market users to review their open orders and positions, and that trading should be resumed with an auction. Many of these respondents however also stated that the current proposal is acceptable and an auction mechanism can be implemented in the longer term as an enhancement.

81. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

82. We welcome the broad support from the market for our proposed model. Consideration has been given to the alternative mechanism of trading suspension

followed by an auction resumption. However, the VCM mechanism is new to the market and market participants would take time to adapt, so a simpler mechanism is preferred.

83. As pointed out earlier in this report, we hold the view that a simple and light-touch VCM model with least interruption to the market is preferred as a first step, given Hong Kong's market structure and the experience of its participants. Further enhancement features can be considered once the market has gained experience with the proposed VCM.

Conclusion

84. We will adopt the proposed model of continued trading within a price limit during the cooling-off period. However it should be noted that since there will only be a maximum of one VCM trigger per instrument per trading session (as described in paragraph 77), no further price monitoring will be imposed after a cooling-off period for the remainder of that trading session. If the maximum number of triggers per instrument per trading session is increased to more than one in the future, the dynamic price limit monitoring mechanism will resume after the cooling-off period.

Duration of Cooling-off Period

85. We proposed the cooling-off period to be 5 minutes for both the securities and derivatives markets. *(Consultation Question 13)*

Comments Received

Category	Q13. Duration of cooling-off period to be 5 minutes for both securities and derivatives markets	
	Support	Not Support
Corporates	**51 (86%)**	**8 (14%)**
HKEx EPs	31	6
Asset management companies	12	0
Industry associations and key market representatives	5	2
Other corporate entities	3	0
Individuals	**7 (4%)**	**180 (96%)**

86. The large majority of corporate respondents (86%) responding to the question supported our proposal.

87. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

88. We welcome the broad support from the market on our proposed duration of cooling-off period and believe it strikes a good balance between the time allowed to the market to react to the abrupt price changes in securities or futures contracts and the

time taken to resume normal trading.

Conclusion

89. We will adopt the proposed duration of 5 minutes for the cooling-off period in both the securities and derivatives markets.

Market Data Dissemination

90. We proposed additional market data (including the reference price, price limit, trading state and time of VCM expiry / resumption) be disseminated for the proposed VCM model. *(Consultation Question 14)*

Comments Received

Category	Q14. Additional market data dissemination	
	Support	**Not Support**
Corporates	**57 (95%)**	**3 (5%)**
HKEx EPs	34	3
Asset management companies	12	0
Industry associations and key market representatives	7	0
Other corporate entities	4	0
Individuals	**9 (5%)**	**177 (95%)**

91. The large majority of corporates respondents (95%) responding to the question supported our proposal to disseminate additional market data in respect of the proposed VCM model, agreeing that it would provide higher transparency to market participants and investors.

92. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

93. We are pleased to receive broad support from the market for the proposed dissemination of additional market data for the proposed VCM model.

Conclusion

94. We will proceed with the proposal to disseminate additional market data. HKEx will provide the market with the VCM triggering time as well as the resumption time so that the market can work out the time to resumption when they receive the information.

Inter-connectivity between Linked Instruments

95. We proposed that trading of related instruments (e.g. futures contracts of different

contract months) on the same underlying should continue as normal if a VCM is triggered for a given instrument. *(Consultation Question 15)*

96. We also proposed that trading of derivatives (e.g. single stock options or derivative warrants) should continue as normal if a VCM is triggered for a given instrument. *(Consultation Question 16)*

97. We also asked whether respondents have any other comments on the VCM proposal. *(Consultation Question 17)*

Comments Received

Category	**Q15. Trading of related instruments (e.g. futures contract of different contract months) on the same underlying continue as normal if VCM is triggered**		**Q16. Trading of derivatives (e.g. single stock options or warrants) of that instrument continue as normal if VCM is triggered**	
	Support	**Not Support**	**Support**	**Not Support**
Corporates	**38 (63%)**	**22 (37%)**	**32 (54%)**	**27 (46%)**
HKEx EPs	24	15	19	18
Asset management companies	9	3	8	4
Industry associations and key market representatives	2	4	2	5
Other corporate entities	3	0	3	0
Individuals	**7 (4%)**	**180 (96%)**	**2 (1%)**	**185 (99%)**

98. The majority of corporate respondents (63% and 54% respectively) supported our proposal that trading in related contracts and in derivatives should continue as normal if the VCM is triggered, believing that a trading error in respect of one instrument (especially a fat finger trading error) should not impact trading of the related instruments.

99. However a significant number of corporate respondents opposed the proposal. Some were concerned about possible abnormal trading in related instruments when the underlying / applicable contract is under VCM and therefore they are of the view that trading of related instruments should be suspended. A significant number of HKEx EPs believed that market making / liquidity provision obligations for futures / options / structured products should be adjusted automatically.

100. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

101. As the underlying stock / contract is still allowed to trade within band during the cooling-off period, its linked instruments should still be allowed to trade. Consideration is given if these instruments should also trade with band but defining a band is practically not feasible for these instruments. On the other hand, halting trading of a potentially large number of related instruments / derivatives could have a

significant impact and might amount to excessive market intervention. Besides, we are of the view that all instruments should be treated independently in order to minimise market interruption. If a VCM has been triggered for a given instrument, it does not necessarily mean that a VCM should be triggered for its linked instruments as the latter may be trading normally.

102. HKEx recognises that it may be difficult for market makers or liquidity providers to hedge when a VCM is triggered, since the VCM would impact their market making capability. However, the current rules, regulations and procedures already make allowance for such situations. Per existing practice, the market makers or liquidity providers may request waiver or relaxation of their market making obligations.

Conclusion

103. We will proceed with our proposal to allow trading of related instruments to continue when the underlying / applicable contract is under a cooling-off period. As at present, market makers or liquidity providers may still make markets for the linked instruments under such circumstances but they may request waiver or relaxation of their market making obligations.

CHAPTER 4: CONCLUSIONS ON VCM

104. Having carefully considered all of the responses received from different market segments, HKEx concludes that there is substantial market support for the introduction of a VCM in the Hong Kong market.

105. Based on the rationale discussed in the previous chapter, the VCM model proposed would be implemented with a few refined features. The final model is shown below.

	Final model
Type of VCM	• Dynamic price limit model applied at the individual instrument level to capture rapid price changes
Applicable products	• Securities: HSI & HSCEI constituent stocks (currently 81 stocks) • Derivatives: spot and next calendar month index futures contracts with HSI or HSCEI as their underlying index (currently 8 futures contracts)
Applicable trading session	• Only applied in CTS but not auction sessions • **Exclude first 15 minutes of morning and afternoon CTS to allow free price discovery at beginning of CTS (refined feature)** • Exclude last 15 minutes of the last CTS of the day to allow free price discovery at market close
Reference price and trigger level	• Reference price: last traded price 5 minutes ago • Triggering level: ±10% for Securities; or ±5% for Derivatives
No. of triggers	• **Max 1 trigger per CTS (refined feature)** • **No VCM monitoring after 1 trigger in each CTS**
Cooling-off and resumption procedures	• Trading within band during 5 min cooling-off period • Resume with no VCM monitoring within the same CTS
Market data dissemination	• Dissemination of additional market data when VCM triggered
Inter-market / product connectivity	• Trading of related instruments unaffected when VCM triggered for their underlying

106. The implementation approach and timeline will be discussed in Chapter 8.

PART C:

CLOSING AUCTION SESSION (CAS)

CHAPTER 5: BACKGROUND AND CONSULTATION MODEL FOR CAS

Background

107. Hong Kong is an international market with participants and investors from all over the world. Over 500 HKEx EPs from diverse origins come to trade in Hong Kong, and they bring both international and local investors to the market. Close to 60% of trading value is from institutional investors, 25% is from retail investors, and the remainder is from EPs' principal trading[11]. Some institutional investors and index trackers in particular are mandated to execute at the closing price, and a significant amount of securities market order flow comes from these market participants every day and especially on index rebalancing days.

108. Market feedback indicates that Hong Kong's current trading methodology does not support execution at the closing price. The issue has led to significant index tracking errors, which in turn undermines the performance of investment funds and is ultimately borne by their investors such as pension funds and retail investors. Internationally, all developed securities markets except Hong Kong and almost all developing securities markets have already adopted a closing auction as an effective way to facilitate execution at market close. Accordingly, many market participants have been requesting the introduction of a CAS in Hong Kong for some years.

109. A CAS was introduced in the Hong Kong securities market in 2008. However, large price movements during the CAS were observed on certain days and in certain securities. Accordingly, the previous CAS was suspended in March 2009.

110. Nonetheless, market participants have continued to request a CAS in order to execute Market-on-Close (MOC) Orders[12]. A new and improved CAS model has therefore been developed which would address the issues that were experienced with the previous CAS.

111. The new CAS model proposed in the Consultation Paper aims to facilitate a smooth price discovery process. It would consist of 4 periods after the end of the afternoon CTS:

- In the first period (the Blocking Period), a reference price, which sets the allowable price limit of the CAS (±5% from the reference price), would be calculated for each security with a CAS (CAS Security).

- In the second period (the Order Input Period), at-auction orders and at-auction limit orders within the ±5% price limit could be input, amended or cancelled.

[11] Source: Cash Market Transaction Survey 2013/14 (http://www.hkex.com.hk/eng/stat/research/Documents/cmts2014.pdf)

[12] Market-on-Close Order is an order with the objective of trading at the closing price.

- Starting from the third period (the No-Cancellation Period), new at-auction limit orders would only be permitted within the lowest ask and highest bid of the order book, and no orders could be amended or cancelled.

- In the last period (the Random Closing Period), while the order rules would follow the preceding period, the market would randomly close within 2 minutes followed by order matching of all CAS Securities.

112. The new CAS is proposed to be applied initially to securities which require execution at market close, namely the major index constituent stocks and ETFs with Hong Kong stocks as underlying. The closing mechanism of other securities would remain unchanged.

113. Subject to market feedback, the CAS model would be further expanded in the second phase to cover all equity securities and funds but still excluding structured products, equity warrants and debt securities.

CHAPTER 6: COMMENTS AND RESPONSES ON CAS

114. In this chapter, we set out the key comments raised by the respondents and our responses on each of the areas being consulted upon.

Respondents from Most Market Segments Strongly Support the Introduction of the CAS

115. We asked respondents if they would support the introduction of the new CAS in the Hong Kong securities market, with the aim of meeting market demand for execution at the closing price and to improve the closing price formation mechanism, while addressing the issue of inherent instability in the previous CAS. *(Consultation Question 18)*

Comments Received

Category	**Q18. Introduction of new CAS model in the Hong Kong securities market**	
	Support	**Not Support**
HKEx EPs	**35** (together represent 61% of market share in securities market)	**4** (another 2 had no comments)
Asset management companies	**15**	**0**
Industry associations and key market representatives	**7**	**2**
Other corporate entities	**5**	**0**
Individuals	**15**	**293** (remaining 2 individual respondents did not provide a view)

116. Respondent from most of the market segments strongly supported the introduction of a CAS. These include 35 out of 41 HKEx EPs (representing 61% market share in the securities market in terms of turnover), all asset management companies, 7 out of 10 industry associations and key market representatives, all 5 other corporate entities and 15 individuals.

117. The large majority of respondents in favour of introducing the CAS gave the following reasons for their support:

a) Many market participants such as the index trackers need to transact a lot of volume at the closing price; however, the current trading methodology does not effectively support it;

b) The closing auction is found to be a superior mechanism for effecting trade execution at the close, benefiting all market users including both retail and institutional investors. Statistical analysis show that markets with closing auctions exhibit lower volatility into and at the close than markets lacking closing auctions;

c) Hong Kong's competitive position as a leading equity market and financial centre would be at risk without a closing auction. Having a closing auction mechanism brings Hong Kong in line with its global peers; and

d) A number of HKEx EPs pointed out that the current approach has material limitations and creates considerable market volatility and risk to participants near the market close. A number of asset management companies highlighted that major index rebalancings are very challenging for large institutional investors under the current approach.

118. The opposition to the CAS came from 4 HKEx EPs, 2 industry associations and 293 individual respondents. However as discussed above a large number of such individual responses were unverifiable, largely identical or did not provide any substantive reasons for their opposition.

119. Responses opposed to launching a CAS mostly gave the following reasons:

a) The CAS may be subject to market manipulation;

b) There is a perception that the CAS only benefits institutional but not retail investors;

c) Retail investors may incur losses when Callable Bull / Bear Contracts (CBBCs) have a mandatory call event during the CAS;

d) The CAS draws away liquidity and volatility from the CTS; and

e) The existing closing mechanism is adequate in determining an appropriate closing price.

Our Response

120. We welcome the broad support from the market for the introduction of a new CAS, and the feedback from market participants that the new CAS model would be able to meet market demand for execution at the closing price and to improve the closing price formation mechanism, while addressing the issue of inherent instability in the previous CAS.

121. We note CBBC's mandatory call event is a product feature rather than a specific CAS issue. We also note that when Hong Kong had its previous CAS, past statistics showed that there was some shifting of CTS liquidity to the CAS but the size was not significant. The liquidity in the CTS would still be sufficient so investors participating in the CTS should not be affected adversely.

122. To address the concerns on CAS not benefiting retail investors and potentially allowing market manipulation, the proposed model contains a number of enhancement features to encourage participation from both retail and institutional investors, as well as to address the price instability issue seen in the last CAS. We also plan to strengthen our market surveillance and monitoring function together with the Securities and Futures Commission (SFC). More investor education efforts would be planned as well to further mitigate these concerns.

Conclusion

123. Based on the feedback received and the proposed CAS is widely supported by the HKEx EPs which account for a significant market share in our markets, asset management companies, industry associations and other corporate entities, we conclude that there is sufficient support for introducing CAS and we will proceed with the proposal of launching a new CAS, with fine-tuning in a number of areas based on respondents' suggestions.

124. For the remaining analysis of CAS as described in paragraphs 125 to 204, respondents who did not respond to a particular question are excluded from the relevant statistical analysis shown below. For convenience of analysis we have grouped the statistics of the corporate respondents separately from those of the individual respondents. Due weight has been be given to the views of the corporate respondents due to their larger contribution to the market.

Applicable Securities for the CAS

125. We proposed 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) in the initial phase. *(Consultation Question 19)*

126. We also consulted on whether the new CAS model should be applied to ETFs and if yes to which type of ETFs. *(Consultation Question 20)*

127. We also consulted on our proposal that the new CAS model should exclude structured products, equity warrants and debt securities. *(Consultation Question 22)*

Comments Received

Category	**Q19. CAS be applied to major index constituent stocks**	
	Support	**Not Support**
Corporates	**32 (51%)**	**31 (49%)**
HKEx EPs	18	20
Asset management companies	8	6
Industry associations and key market representatives	6	0
Other corporate entities	0	5
Individuals	**1 (1%)**	**187 (99%)**

Category	Q20. CAS be applied to ETFs			
	Support and apply to all ETFs	**Support and only apply to ETFs with Hong Kong stocks as underlying**	**Support with no specific view on scope of ETFs to be included**	**Not Support**
Corporates	**44 (75%)**	**8 (14%)**	**2 (3%)**	**5 (8%)**
HKEx EPs	28	4	2	4
Asset management companies	12	2	0	0
Industry associations and key market representatives	2	2	0	0
Other corporate entities	2	0	0	1
Individuals	**8 (4%)**	**2 (1%)**	**1 (1%)**	**177 (94%)**

Category	Q22. CAS model should exclude structured products, equity warrants and debt securities	
	Support	**Not Support**
Corporates	**46 (84%)**	**9 (16%)**
HKEx EPs	29	7
Asset management companies	13	0
Industry associations and key market representatives	3	1
Other corporate entities	1	1
Individuals	**10 (5%)**	**179 (95%)**

128. While close to 90% of corporate respondents welcomed the CAS proposal, about half of them agreed with the applicable securities of the CAS, with the other half preferring a wider application of the CAS, and almost all stressed the importance of extending the CAS to all securities in the longer term.

129. As for *Consultation Question 20* which concerned the application of the CAS to ETFs, the vast majority of corporate respondents (92%) supported the proposal that the CAS be applied to ETFs. Among such respondents, the large majority suggested that even in the initial stage the CAS should be applied to all ETFs instead of ETFs with Hong Kong stocks as underlying only. Some mentioned the operational complexity and possible market confusion which might be caused if there are different closing mechanisms for similar ETFs. The relevant respondents suggested that consistency and clear communication would be beneficial to the market.

130. The vast majority of corporate respondents (84%) supported our proposal that a CAS model should exclude structured products, equity warrants and debt securities in any case. Only a small number of respondents did not agree that a CAS model should exclude structured products.

131. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

132. We note the mixed feedback from the market on the applicable CAS Securities in the initial phase. However, we consider that a phased approach is necessary to minimise market impact and ensure a smooth rollout of the new CAS.

133. We agree with respondents' view that it will be more optimal to apply the CAS to all ETFs instead of only to ETFs with Hong Kong stocks as underlying, as the former approach will provide a higher level of consistency and facilitate market communication.

134. It is noted that there will be different closing times for structured products and their underlyings, and that therefore some respondents have argued that structured products should be included in the CAS. However, as these products have no need for execution at the closing price, a CAS would not be needed. We also note that in other markets such as the London Stock Exchange (LSE) and Deutsche Börse (DB), these products not included in the CAS either.

Conclusion

135. We will proceed with the proposal to apply the CAS tentatively to (1) Hang Seng Composite LargeCap Index and Hang Seng Composite MidCap index constituents as well as other H shares which have corresponding A shares listed on the exchanges in Mainland China, and (2) all ETFs for Phase 1. The list of securities with a CAS will be confirmed and published before the rollout of Phase 1.

Rollout Approach for the CAS

136. We consulted on whether at a later stage the new CAS model should be expanded to other equity securities and funds, and if so when it should be done. *(Consultation question 21)*

Comments Received

Category	Q21. CAS model should expand to other equity securities and funds	
	Support	Not Support
Corporates	**49 (83%)**	**10 (17%)**
HKEx EPs	28	9
Asset management companies	13	0
Industry associations and key market representatives	4	1
Other corporate entities	4	0
Individuals	**7 (4%)**	**181 (96%)**

137. The large majority of corporate respondent (83%) would like the CAS to cover all securities and funds in the longer term. Rollout times ranging from as soon as possible to over 12 months after initial rollout were suggested. The main benefits cited were consistency in handling stocks which need to be executed at the closing

price and synergy in system development effort.

138. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

139. We recognise the clear market feedback that the CAS should be applied to all securities and funds after the initial phase. When the market is familiar with the new CAS mechanism, it is our intention to further expand the coverage to these securities. Structured products, equity warrants and debt securities would however still be excluded.

Conclusion

140. Subject to smooth rollout of Phase 1 and market familiarization with the CAS, we will expand the security coverage to all other equity securities and funds, but still exclude structured products, equity warrants and debt securities. The second phase would tentatively be implemented about six months after initial launch. The Phase 2 implementation should not be subject to a separate consultation but a review of Phase 1 would be conducted to confirm the rollout of Phase 2.

Price Limit Imposed on At-Auction Limit Orders during the CAS

141. We consulted on the introduction of a price limit during the CAS to prevent excessive price movement in the CAS. *(Consultation Question 23)*

142. We also consulted on whether respondents support a price limit of 5% during the Order Input Period (i.e. the first stage of the two-stage price limit) for all CAS Securities. *(Consultation Question 24)*

143. We also consulted on whether a further price limit within the best bid and best ask (i.e. the second-stage price limit) should be applied during the No-Cancellation Period and the Random Closing Period. *(Consultation Question 25)*

Comments Received

Category	Q23. Introduce a price limit during the CAS		Q24. Price limit of 5% during the Order Input Period for all CAS Securities		Q25. A further price limit within best bid and best ask applied during the No-Cancellation Period and the Random Closing Period	
	Support	**Not Support**	**Support**	**Not Support**	**Support**	**Not Support**
Corporates	**49 (78%)**	**14 (22%)**	**24 (39%)**	**38 (61%)**	**23 (40%)**	**34 (60%)**
HKEx EPs	32	7	14	25	17	20
Asset management companies	9	5	8	5	4	9
Industry associations and key market representatives	7	0	1	6	1	3
Other corporate entities	1	2	1	2	1	2
Individuals	**10 (5%)**	**177 (95%)**	**9 (5%)**	**178 (95%)**	**4 (2%)**	**184 (98%)**

144. The majority of corporate respondents (78%) supported the introduction of a price limit during the CAS as a safety feature to mitigate extreme price movement during the CAS. A small number of corporate respondents preferred no limit at all.

145. The respondents were noticeably more divergent in their views on the actual limit of the price threshold. A few corporate respondents representing the retail sector asked for a 2% or 3% price limit. Many HKEx EPs, some asset management companies and associations indicated that a price limit which is too restrictive would not be conducive to liquidity in the CAS and would reduce the utility of CAS. The large majority of these respondents asked for 5%, a wider price limit ranging from 7.5% to 10%, or no limit at all.

146. Only 40% of corporate respondents agreed to a further price limit within best bid and best ask applied during the No-Cancellation Period and the Random Closing Period, as they do not see the need for further tightening of price limit. However, a few respondents did cite the merits of having a second-stage price limit as it would reduce the risk of large price volatility at the end of the CAS.

147. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

148. We recognize the broad support from the market for the introduction of a price limit as a key measure to prevent excessive price movement in the CAS. At the same time we also note respondents' divergent views on the threshold parameter of the price limit.

149. According to daily trading statistics in recent months, setting the price limit at 2% would overly restrict trading and cause difficulty to order completion. Based on the

past statistics, around 10% of equities would not be able to complete their trades at the close on a typical trading day[13]. The percentage would rise further for index rebalancing days. Almost 1 out of 4 stocks which were either added to or deleted from the key indices could not have completed trading at the close if the 2% price limit were imposed[14]. In all these scenarios, orders not completed might lead to potential loss for investors.

150. An overly restrictive price limit might also induce market participants to input orders with more aggressive prices or to trade ahead of the market close, thus causing unwarranted volatility and liquidity issues in the CAS.

151. The 5% limit would not be too wide either, as even today, some stocks may move more than 5% in just a few minutes during continuous trading or near the close. It should also be noted that our proposed 5% price limit is already the most prudent among all markets which have a CAS.

152. The price instability issue in the CAS is a common concern shared by both retail and institutional investors. The second-stage price limit, as noted by some respondents, would help address the issue by preventing aggressive at-auction limit orders being input near the end of the CAS. The certainty of the possible auction price range would also encourage market to submit offsetting orders in the case of an imbalanced order book.

Conclusion

153. Balancing retail and institutional market feedback and the strong need to address the price volatility issue, we will proceed with the original proposal, i.e. introducing a 5% price limit first during the Order Input Period, and applying a further price limit within best bid and best ask during the No-Cancellation Period and the Random Closing Period.

Allowing the Input of At-Auction Limit Orders throughout the CAS

154. We proposed that at-auction limit orders should be allowed throughout the CAS for better price discovery. *(Consultation Question 26)*

[13] Based on 3-months trading statistics from Dec 2014 to Feb 2015
[14] Based on trading statistics on major index rebalancing days for the 5-year period from 2010 to 2014.

Comments Received

Category	Q26. At-auction limit orders allowed throughout the CAS	
	Support	**Not Support**
Corporates	**56 (95%)**	**3 (5%)**
HKEx EPs	34	3
Asset management companies	13	0
Industry associations and key market representatives	6	0
Other corporate entities	3	0
Individuals	**9 (5%)**	**178 (95%)**

155. The large majority of corporate respondents (95%) responding to the question agreed with our proposal to allow at-auction limit orders throughout the CAS, citing benefits such as better liquidity, price discovery and lower volatility in the CAS.

156. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

157. We welcome the broad support from the market for our proposal to allow input of at-auction limit orders throughout the CAS for better price discovery.

Conclusion

158. We will proceed with the proposal to allow at-auction limit orders throughout the CAS.

Short Selling with Tick Rule Allowed

159. We proposed that short selling orders with a tick rule should be allowed during the CAS for better price discovery. *(Consultation Question 27)* If short selling orders are to be allowed, we also consulted on whether they should be at or higher than the reference price. *(Consultation Question 28)*

Comments Received

Category	Q27. Short selling orders with tick rule be allowed during the CAS		Q28. If allowed, should it be at or higher than the reference price	
	Support	Not Support	Support	Not Support
Corporates	**49 (82%)**	**11 (18%)**	**20 (36%)**	**36 (64%)**
HKEx EPs	28	9	13	24
Asset management companies	13	0	6	6
Industry associations and key market representatives	5	2	1	3
Other corporate entities	3	0	0	3
Individuals	**9 (5%)**	**179 (95%)**	**8 (4%)**	**179 (96%)**

160. A large majority of corporate respondents (82%) supported having short selling orders with tick rule during the CAS. However, most corporate respondents felt that a tick rule is not necessary and is too restrictive for these short selling orders.

161. A small number of respondents did not object to the short selling proposals but felt that the proposal should be implemented in Phase 2 after the market is familiar with the new CAS rather than immediately in Phase 1.

162. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

163. We welcome the broad support from the market for our proposal to allow short selling orders with tick rule to improve liquidity during the CAS. To err on the side of caution, we agree that short selling orders should be implemented in Phase 2 when the market is familiar with the new CAS.

Conclusion

164. To allow the market to be familiar with the new CAS, short selling will not be implemented at initial launch. However it is our intention to roll out short selling subject to a tick rule in Phase 2, which as mentioned in paragraph 140, should be rolled out 6 months or later after a review of Phase 1.

No Order Amendment and Cancellation towards the End of the CAS

165. We consulted on whether order amendment and cancellation should be disallowed during the No-Cancellation Period and the Random Closing Period to prevent drastic changes to the order book towards the end of the CAS and to encourage market participants to input orders before the No-Cancellation Period. (Consultation Question 29)

Comments Received

Category	Q29. Order amendment and cancellation disallowed during the No-Cancellation Period and the Random Closing Period	
	Support	Not Support
Corporates	**46 (78%)**	**13 (22%)**
HKEx EPs	26	11
Asset management companies	12	1
Industry associations and key market representatives	4	1
Other corporate entities	4	0
Individuals	**10 (5%)**	**178 (95%)**

166. The large majority of corporate respondents (78%) agreed that order amendment and cancellation should be disallowed towards the later stage of the CAS to avoid the possibility of price manipulation / gaming (e.g. a large order being suddenly cancelled and causing large adverse price movements in the CAS Securities).

167. A number of HKEx EPs and asset management companies also preferred the ability to cancel genuinely erroneous orders at any point during the CAS to mitigate the risk of input error.

168. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

169. We welcome the broad support from the market for the proposal that order amendment and cancellation be disallowed during the No-Cancellation Period and the Random Closing Period to deter gaming behaviour at or near the end of the CAS. This is in line with the objective of preventing manipulative behaviour towards to end of the CAS. As in the Pre-order Matching Period in POS, brokers and investors would need to exercise extra care to ensure orders input are accurate during the CAS.

Conclusion

170. We will proceed with the proposal to disallow cancellation and amendment in the No-Cancellation Period and the Random Closing Period.

Random Closing to End the CAS

171. We proposed that random closing be adopted in the CAS to deter gaming. *(Consultation Question 30)*

172. If random closing is to be adopted, we also consulted on whether it should be over a period of up to 2 minutes or whether a different duration is preferred. *(Consultation Question 31)*

Comments Received

Category	Q30. Random closing be adopted in the CAS to prevent gaming		Q31. If adopted, should it be over a period of up to 2 minutes or a different duration	
	Support	Not Support	Up to 2 minutes	A different duration
Corporates	**55 (93%)**	**4 (7%)**	**36 (65%)**	**19 (35%)**
HKEx EPs	32	4	19	15
Asset management companies	13	0	11	2
Industry associations and key market representatives	6	0	3	2
Other corporate entities	4	0	3	0
Individuals	**7 (4%)**	**180 (96%)**	**7 (4%)**	**176 (96%)**

173. The vast majority of corporate respondents (93%) agreed that random closing should be adopted in the CAS to deter gaming, citing that random closing has been effective in other markets as an anti-gaming mechanism, and that this would remove the incentive to delay the display of buying and selling interest and encourage earlier order input.

174. The majority of corporate respondents (65%) believed that a random closing period of up to 2 minutes is appropriate and should be adopted. However a number of industry associations, HKEx EPs and asset management companies preferred a shorter duration ranging from 10 to 90 seconds.

175. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

176. We welcome the broad market support from the HKEx EPs, industry associations and key market representatives, asset management companies and other corporate entities on adopting random closing, and the majority view that a 2 minutes random period is appropriate.

177. A small number of market participants raised concerns that random closing may cause market confusion as to the exact closing time and increase implementation complexity. However, the experience of the previous CAS highlights the disadvantage of having a fixed closing time. Accordingly, we are of the view that implementing a random closing time together with a price limit is essential to deter gaming behaviour. Potential concerns on model complexity should instead be addressed by market education.

Conclusion

178. We will proceed with the proposal to adopt a random closing period of up to 2 minutes.

Allowing Matching for CAS Securities without Final Indicative Equilibrium Price (IEP) at Reference Price

179. We consulted on our proposal that in the absence of a final IEP, the reference price should be used as the closing price and be used for trade matching. *(Consultation Question 32)*

Comments Received

Category	Q32. Reference price should be used as the closing price and for trade matching in the absence of a final IEP	
	Support	Not Support
Corporates	**51 (89%)**	**6 (11%)**
HKEx EPs	30	5
Asset management companies	13	0
Industry associations and key market representatives	5	0
Other corporate entities	3	1
Individuals	**9 (5%)**	**179 (95%)**

180. The large majority of corporate respondents (89%) agreed with our proposal to allow matching for securities without a final IEP at the reference price.

181. However a number of HKEx EPs, asset management companies and industry associations also suggested using other prices such as the last traded price or a volume weighted price for matching.

182. Most individual respondents were against our proposal and did not give reasons for their responses.

Our Response

183. We welcome the clear support for our proposal, and the majority view that the market would prefer using the reference price, which is also the closing price for securities without a CAS, for matching trades in the CAS in the absence of an IEP.

Conclusion

184. We will proceed with the proposal to allow matching for CAS Securities without final an IEP at the reference price.

Duration of the CAS

185. We consulted on the preferred duration of the CAS, being (i) same as the proposed model, i.e. 7-minute Order Input Period to end the CAS at 16:12; or (ii) 5-minute Order Input period to end the CAS at 16:10; or (iii) other preferred duration. *(Consultation Question 33)*

Comments Received

Category	Q33. Duration of CAS		
	(i) 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
Corporates	**40 (71%)**	**12 (22%)**	**4 (7%)**
HKEx EPs	24	7	4
Asset management companies	11	2	0
Industry associations and key market representatives	3	2	0
Other corporate entities	2	1	0
Individuals	**6 (3%)**	**4 (2%)**	**176 (95%)**

186. The majority of corporate respondents (71%) find option (i) – a 7-minute Order Input Period ending the CAS at 16:12 – acceptable. Nonetheless, a significant number of respondents representing the retail interest expressed the wish for a shorter Order Input Period so that the CAS can end by 16:10.

187. Most individuals responded by choosing option (iii) – Others, without specifying what the preferred duration is.

Our Response

188. While we note most market participants find a 7-minute Order Input Period acceptable, we note that a number of market participants preferred a shorter Order Input Period of 5 minutes so that the CAS can end earlier at 16:10. We are of the view that a shorter input period of 5 minutes can be adopted as it should not have an adverse impact on market trading as compared to ending the CAS at 16:12.

Conclusion

189. We will adopt option (ii), a 5-minute Order Input Period ending the CAS by 16:10.

Impact on POS and TH

190. We consulted on whether some features of the new CAS would also be beneficial for the POS and / or the mid-auction session for the TH, and if so which features(s). *(Consultation Question 34)*

191. We also consulted on whether any enhancements for POS and / or the TH should be implemented later rather than during the introduction of the new CAS. *(Consultation Question 35)*

Comments Received

Category	Q34. Some features of new CAS model also be beneficial for POS and / or TH		Q35. Any enhancements for POS and / or TH be implemented later	
	Yes	No	Yes	No
Corporates	**40 (74%)**	**14 (26%)**	**47 (85%)**	**8 (15%)**
HKEx EPs	25	9	30	4
Asset management companies	10	2	9	4
Industry associations and key market representatives	3	2	5	0
Other corporate entities	2	1	3	0
Individuals	**2 (1%)**	**184 (99%)**	**5 (38%)**	**8 (62%)**

192. The large majority of corporate respondents (74%) agreed that some or all features of the new CAS model would also be beneficial for the POS or TH. These may include at-auction limit orders being allowed at all times, random closing, and allowing matching at a reference price if no IEP is formed.

193. The large majority of respondents also agreed that any enhancements for POS / TH should be implemented after the new CAS is launched. Many believed that the market should be given time to get familiar with the new CAS first, before any of its enhancement features are applied to the POS / TH.

194. Most individual respondents were against our proposal and did not give reasons for their responses or with reasons that are not answering the question 34. For question 35, only a few individuals responded to the questions and the feedback was mixed.

Our Response

195. We note the market participants' feedback that the existing POS and the proposed TH may be enhanced by adopting the key features of the new CAS, and that the enhancements should be done after the market is familiar with the new CAS. We will work with market participants on the enhancements needed for the POS and the proposed TH.

Conclusion

196. We will work with the market to implement appropriate enhancement features of the new CAS, where appropriate, in the POS and the planned TH at a later stage after a review is conducted in conjunction with the market.

Impact of the Extended Market Closing Time

197. We consulted on whether respondents foresee any issues with their day-end processing such as margin calls in the securities market due to the extended trading time of 12 minutes, and we also asked how such issue(s) might be resolved. *(Consultation Question 36)*

198. For the derivatives market, we consulted on our proposal that the start time of AHFT be changed from 17:00 to 17:15 in order to maintain the 45-minute break before the start of AHFT, and what start time of AHFT would be preferred if otherwise. *(Consultation Question 37)*

<u>Comments Received</u>

Category	Q36. Any issues with day end processing due to extended trading time for 12 minutes		Q37. Start time of AHFT be changed from 17:00 to 17:15	
	Yes	**No Issues**	**Support**	**Not Support**
Corporates	**5 (9%)**	**51 (91%)**	**38 (70%)**	**16 (30%)**
HKEx EPs	3	33	22	12
Asset management companies	0	11	10	2
Industry associations and key market representatives	2	4	5	0
Other corporate entities	0	3	1	2
Individuals	**0 (0%)**	**184 (100%)**	**7 (4%)**	**178 (96%)**

199. The vast majority of corporate respondents (91%) covering both the securities and derivatives markets did not express any issues with day-end processing due to extended trading time because of the CAS.

200. The majority of corporate respondents (70%) agreed that the start time of AHFT be changed from 17:00 to 17:15 in order to maintain the existing 45-minute break before the start of AHFT. Out of those which opposed, a number of HKEx EPs and asset management companies believed that it is not necessary to change the starting time of AHFT and that it can remain as 17:00. A small number of HKEx EPs preferred to be able to trade the AHFT session as early as possible.

201. Most individual respondents were against our proposal and did not give reasons for their responses.

<u>Our Response</u>

202. We note the vast majority of market participants do not have an issue with day-end processing due to the extended trading time.

203. In addition, since the majority of respondents (70%) support maintaining the 45-minute break before the market open of AHFT, we will postpone the starting time of AHFT from 17:00 to 17:15.

<u>Conclusion</u>

204. With the new CAS, the securities market closing time would be extended to 16:10 (revised from 16:12, see paragraphs 185 to 189). Accordingly, Stock Index Futures, Stock Index Options, Dividend Futures, HSI Volatility Index Futures and CES China 120 Index Futures in the derivatives market would be extended to 16:30. The start

time of AHFT would also be changed from 17:00 to 17:15 in order to maintain the existing 45 minutes break before the start of AHFT.

CHAPTER 7: CONCLUSIONS ON CAS

Conclusions and Way Forward

205. Having carefully considered all of the responses received from different market segments, HKEx concludes that there is substantial market support for the introduction of the CAS. Accordingly, the proposed CAS model would be largely adopted with fine-tuning in a number of areas based on suggestions of the respondents.

206. The new CAS model to be implemented will be as follows:

	Final model
Applicable securities and rollout approach	• Phase 1: tentatively Hang Seng Composite LargeCap & Composite MidCap Index constituent stocks, H shares which have corresponding A shares listed on Mainland securities exchanges, **and all ETFs (refined feature)** • Phase 2: Roll out to all equity securities and funds 6 months afterwards after a review (but not subject to a separate consultation)
Price limit	• Order Input Period: ± 5% from reference price • No-Cancellation Period and Random Closing Period: between lowest ask and highest bid
At-auction limit orders	• Allow at-auction limit orders throughout the CAS
Short selling	• **No short selling in Phase 1; Consider rolling out short selling with tick rule (at or higher than reference price) in Phase 2 (refined feature)**
Order amendment & cancellation	• Disallow order amendment & cancellation during No-Cancellation Period and Random Closing Period
Random closing	• 2-minute Random Closing Period
Trade matching in absence of IEP	• Use Reference Price for trade execution in absence of final IEP
CAS duration	• **5-min Order Input Period to end CAS at 16:10 (refined feature)**
Trading Hours of the Derivatives market	• Stock Index Futures, Stock Index Options, Dividend Futures, HSI Volatility Index Futures and CES China 120 Index Futures of derivatives market to close at 16:30 • AHFT starting time postponed to 17:15 in order to keep 45-minute break

207. The implementation approach and timeline will be discussed in Chapter 8.

PART D:

IMPLEMENTATION APPROACH AND TIMELINE

CHAPTER 8: COMMENTS, RESPONSES AND CONCLUSIONS ON IMPLEMENTATION APPROACH AND TIMELINE

208. For the remaining analysis of implementation approach and timeline as described in paragraphs 209 to 219, respondents who did not respond to a particular question are excluded from the relevant statistical analysis shown below.

209. We consulted on the preferred implementation approach for the three initiatives (i.e. VCM, CAS and TH) in the securities market *(Consultation Question 38)*, namely:

- the development and testing of the VCM, CAS and TH functionalities are to be implemented together on the AMS/3.8 platform and be rolled out one by one; or
- (1) the development, testing and rollout of VCM and CAS are to be implemented together on the AMS/3.8 platform, and (2) TH proposal is to be introduced as part of the securities market's next-generation trading system, the OTP-C; or
- others.

<u>Comments Received</u>

Category	**Q38. Preferred implementation approach**		
	(i) Development and testing of VCM, CAS and TH functionalities to be implemented together on the AMS/3.8 platform and be rolled out one by one	**(ii) (1) Development, testing and rollout of VCM and CAS to be implemented together on the AMS/3.8 platform, and (2) TH proposal to be introduced as part of next-generation trading system**	**(iii) Others**
Corporates	**18 (32%)**	**30 (54%)**	**8 (14%)** (mostly preferred to implement CAS as soon as possible)
HKEx EPs	10	18	8
Asset management companies	4	8	0
Industry associations and key market representatives	4	2	0
Other entities	0	2	0
Individuals	**4 (2%)**	**3 (2%)**	**178 (96%)** (mostly did not provide any details)

210. Over half of corporate respondents (54%) prefer option (ii). A smaller proportion of

corporate respondents (32%) prefer option (i) citing synergies in system development and ease of implementation as the main reasons. Most of the remaining corporate respondents urged HKEx to implement the CAS as soon as possible first and leaving the implementation of VCM and TH to later.

211. We also consulted on the implementation priority among the three initiatives in the securities market. *(Consultation Question 39)*

Category	**Q39. Implementation priority among the three initiatives in the securities market**		
	(i) CAS	**(ii) VCM**	**(iii) TH**
Corporates	**39 (76%)**	**11 (22%)**	**1 (2%)**
HKEx EPs	22	8	0
Asset management companies	10	1	0
Industry associations and key market representatives	4	1	1
Other entities	3	1	0
Individuals	**6 (67%)**	**3 (33%)**	**0 (0%)**

212. Most corporate respondents (76%) ranked CAS as the top priority, as opposed to 22% and 2% of the corporate respondents which indicated VCM and TH as the top priority respectively.

213. Lastly, we asked respondents how much time would be needed to prepare for the rollout of VCM and CAS starting from the issuance of the specification. *(Consultation Question 40)*

Category	**Q40. (For VCM) Lead time required to prepare for rollout (starting from issuance of specification for each initiative)**			
	(a) Under 3 months	**(b) 4-6 months**	**(c) 7-12 months**	**(d) >12 months**
Corporates	**15 (25%)**	**25 (43%)**	**9 (16%)**	**9 (16%)**
HKEx EPs	6	18	7	8
Asset management companies	7	2	1	0
Industry associations and key market representatives	0	4	1	0
Other entities	2	1	0	1
Individuals	**3 (37%)**	**2 (26%)**	**3 (37%)**	**0 (0%)**

Category	Q40. (For CAS) Lead time required to prepare for rollout (starting from issuance of specification for each initiative)			
	(a) Under 3 months	(b) 4-6 months	(c) 7-12 months	(d) >12 months
Corporates	**16 (28%)**	**23 (40%)**	**11 (19%)**	**8 (13%)**
HKEx EPs	7	16	9	6
Asset management companies	8	2	1	0
Industry associations and key market representatives	0	3	0	2
Other entities	1	2	1	0
Individuals	**4 (57%)**	**2 (29%)**	**1 (14%)**	**0 (0%)**

214. The vast majority of corporate respondents (84% and 87%) indicated a required lead time of 12 months or less for the VCM and CAS respectively. A small number of respondents indicated a lead time longer than 12 months in their response.

Our Response

215. We note the market's preference to implement the VCM / CAS first and then TH later and that most participants can implement the system changes for the VCM / CAS within 12 months.

216. Taking account of the market responses to questions 34 and 35 (paragraphs 190 – 196) that the auction mechanism in the POS and TH may be enhanced by using some features in the CAS, we are of the view that TH should only be implemented after the new CAS is introduced and the market is familiar with the new features. Based on the existing timeline and platform development plan for the market, TH should be implemented on OTP-C, which is tentatively planned for rollout in 2017 or later.

Conclusion

217. According to the view expressed by the majority of the market, the proposals for the new VCM and CAS model will be implemented on the current trading platforms, i.e. AMS/3.8 in the securities market and HKATS in the derivatives market. In order to minimise the development and testing efforts for the market, the development and testing of the VCM and CAS for the securities market will be bundled together. However, the rollout would be done in phases starting from the third quarter of 2016 to minimise migration risk. As such, the market will be given a full year of preparation lead time. Relevant specification documents for the development and implementation of VCM and CAS will be issued separately after this consultation conclusions report.

218. The implementation of TH would be done as part of the OTP-C infrastructure, which is tentatively planned for rollout in 2017 or later.

219. For the VCM in the derivatives market, the development and rollout would be handled independently as it is implemented on a trading platform separate from the securities market. The tentative rollout date is the last quarter of 2016.

APPENDIX: LIST OF RESPONDENTS

HKEx EPs (41 in total)

1	BNP Paribas Securities (Asia) Limited
2	Bright Smart Futures & Commodities Company Limited
3	Bright Smart Securities International (H.K.) Limited
4	Celestial Commodities Limited
5	Celestial Securities Limited
6	Chief Securities Limited / Chief Commodities Limited
7	Citigroup Global Markets Asia Limited
8	Eclipse Options (HK) Limited
9	Hang Seng Securities Limited
10	I-Access Investors Limited
11	IMC Asia Pacific Limited
12	J.P. Morgan Broking (Hong Kong) Limited
13	Macquarie Capital Securities Limited
14	Optiver Trading Hong Kong Limited
15-39	25 HKEx EPs requested anonymity
40-41	2 HKEx EPs requested non-disclosure and anonymity

Asset Management Companies (15 in total)

42	Hang Seng Investment Management Limited
43	T. Rowe Price Hong Kong Limited
44	Vanguard Investments Hong Kong Limited
45-56	12 asset management companies requested anonymity

Industry Associations and Key Market Representatives (10 in total)

57	Alternative Investment Management Association Limited
58	Asia Securities Industry & Financial Markets Association
59	Hong Kong Investment Funds Association
60	Hong Kong Securities & Futures Professionals Association
61	Hong Kong Securities Association
62	Hong Kong Securities Professionals Association
63	Quorum 15 Limited
64	The Hong Kong Society of Financial Analysts
65	The Institute of Securities Dealers Limited
66	Hon Christopher Cheung Wah-Fung, SBS, JP

Other Entities (5 in total)

67-71	5 other entities requested anonymity

Individuals (310 in total)

72	Chan Chau Yuen, Andy
73	Chan Chun Kin
74	陳凱君
75	Chan Kwong Leung
76	Chan Yik Kim
77	鄭敏
78	蔡揮日
79	Dr. Sean Foley / Dr. Tali Putnins
80	Lam Kwok Chong
81	林達仁
82	Lu Chun He
83	Ms Chu
84	Ng Yok Bor
85	Sandy Chan

86	Sui Ming Fai
87	To Kam Ming
88	Tong Hing Yuen
89	徐可儀
90	Tsui S L
91	Wong Hing Kans
92	Wong Kwok Chi
93	Yuen Suet Lin
94-381	288 individuals requested anonymity

Remarks:

1. *One submission is counted as one response.*
2. *The total number of responses is calculated according to the number of submissions received and not the underlying members that they represent.*