

CONSULTATION CONCLUSIONS
THE INTRODUCTION OF A
CLOSING AUCTION SESSION

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Hong Kong Exchanges and Clearing Limited
香港交易及結算所有限公司

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EXECUTIVE SUMMARY

This report presents the results of a public consultation undertaken by Hong Kong Exchanges and Clearing Limited (HKEx) on the proposal to introduce a closing auction session for the cash market. During the consultation process, HKEx received a total of 23 sets of market comments and the majority of the respondents welcomed the proposal. In view of the broad support received, HKEx will implement the closing auction model substantially as originally proposed except that the durations for the order input period and the pre-order matching period have been extended from 5 minutes to 8 minutes and from 1 minute to 2 minutes respectively in response to market feedback. Subject to the approval of the necessary rule amendments by the Securities and Futures Commission (SFC), implementation of the closing auction session is tentatively scheduled to take place in February 2008.

PART A: INTRODUCTION

1. On 21 March 2007, HKEx published a consultation paper on “The Introduction of a Closing Auction Session” (Consultation Paper) to invite market views and comments. The proposed closing auction session aims to provide a single-price auction after the completion of the continuous trading session.
2. The consultation period closed on 7 May 2007. Overall market feedback indicated strong support for the proposal.
3. This consultation conclusions report summarises the main points made by the respondents and provides conclusions as to how we proceed with the proposal. This document should be read in conjunction with the Consultation Paper.
4. We would like to take this opportunity to thank all those who have shared with us their views and suggestions during the consultation process.

PART B: OVERALL MARKET FEEDBACK

The Respondents

5. In total, 23 sets of comments were received and the respondents could be grouped into broad categories as follows:

Category	Number of Respondents
Exchange Participants	16
Investment Management and Advisory Firms	3
Banks	2
Broker Association	1
Law Firm	1

6. A list of the respondents is provided in Appendix I. The full text of their submissions is available on the HKEx website at <http://www.hkex.com.hk/consul/response/responses1.htm> for public reference.

Majority in Favour of the Proposal

7. The majority of the respondents (21 out of 23) welcomed the introduction of a closing auction session citing various potential benefits. One respondent was not in favour of the proposal, and one did not indicate a preference. An analysis of the respondents' views is provided in Appendix II.
8. HKEx is pleased that the market is responding positively to the proposal. Closing auction is an internationally proven mechanism that aims to provide an accessible, fair, and market-driven method of closing a trading session and determining closing prices. Its implementation will facilitate market participants to complete their clients' orders at closing prices, and will further align the Hong Kong securities market with international practices.
9. In addition, many respondents concurred that securities prices determined through a single-price auction are likely to be less susceptible to manipulation compared with the existing closing price determination methodology.
10. The benefit of closing auction extends beyond the cash market. The improved price discovery at the close may increase the efficiency of the derivatives markets by making marking-to-market more orderly, and making it easier for derivatives traders to unwind their positions and effect more precise hedging.
11. In view of the broad support received, we have decided to adopt the model substantially as proposed in the Consultation Paper, with minor fine-tuning based on suggestions of the respondents.
12. During the course of finalising the implementation model, we placed emphasis on understanding and responding to market opinions. To this end we held face-to-face meetings with all interested respondents to ascertain their preference. We appreciate the opportunity of having such open and constructive discussions with the respondents which helped us build an implementation model that is based on market preference.

PART C: IMPLEMENTATION MODEL

13. From the outset of the consultation when we formulated the way forward model for the closing auction session, we were guided by the following broad principles:
- (a) the introduced closing auction mechanism must be fair, transparent, and easily understood by market participants;
 - (b) the closing auction should mirror the existing open auction and other relevant trading practices to the extent possible to simplify implementation efforts by HKEx and market participants; however, incremental enhancements to the introduced mechanism could be considered from time to time after market-wide acceptance for closing auction has been established; and
 - (c) sufficient lead time should be given to ensure market readiness.
14. These guiding principles were consistently applied in our deliberations and decision to adopt the implementation model presented below.

Security Coverage

15. Consistent with the original proposal in the Consultation Paper and existing pre-opening auction session, a single-price auction will be used for all equities, warrants, callable bull/bear contracts, exchange traded funds and other securities traded on the Main Board and Growth Enterprise Market during the closing session.

Order Input Period and Pre-order Matching Period

16. The closing auction session will begin after the completion of the continuous trading session at 16:00 for normal day trading, or 12:30 for half day trading as the case may be. As explained in the Consultation Paper, there may be no closing auction session if the continuous trading session is terminated or adversely affected by an emergency, including but not limited to fire or other accident, typhoon, rainstorm, computer malfunction and other similar events. Under such circumstances, the current emergency arrangement for determining closing prices will follow (ie the last nominal prices will be used as closing prices).
17. All outstanding orders will be automatically carried forward from the continuous trading session to the order input period of the closing auction session as proposed in the Consultation Paper.
18. However, based on market feedback, we have extended both the order input period and pre-order matching period as compared with the original proposal¹ in order to allow more order input time by market participants. The following table summarises the revised operating hours for the closing auction session.

¹ The original model proposes that the order input period is 5 minutes and the pre-order matching period is 1 minute.

	Normal Day Trading	Half Day Trading (eg Christmas eve)
Order input period (8 minutes)	16:00 to 16:08	12:30 to 12:38
Pre-order matching period (2 minutes)	16:08 to 16:10	12:38 to 12:40
Commencement of order matching after official end of the trading session	16:10	12:40

Acceptable Order Types and Order Input Rules

19. The acceptable order types and rules for order input, amendment and cancellation during the closing auction session will follow the same principles as in the existing pre-opening session.
20. During the order input period, both at-auction orders (without specified prices) and at-auction limit orders (with specified prices) will be accepted whereas during the pre-order matching period only at-auction orders will be accepted. Similar to the pre-opening session, orders can only be amended or cancelled during the order input period.
21. As an at-auction order is by nature a market order, it enjoys a higher order matching priority than an at-auction limit order. However, it should be noted that even an at-auction order can remain unfilled due to order imbalances on the relevant bid or ask side.

Order Matching and Closing Price Determination

22. Once the order matching begins at 16:10 or 12:40 as the case may be, orders will be matched in order type, price and time priority at the final Indicative Equilibrium Price (IEP). The calculation of the IEP follows existing rules adopted in the pre-opening session as shown in Appendix III. Illustrative examples of order matching and IEP calculation are available on the HKEx website (<http://www.hkex.com.hk/consul/conclusion/iep.pdf>).
23. As explained in the Consultation Paper, if the closing auction session does not generate a closing price (ie no final IEP), the existing method using the median of the five 15 second snapshots taken in the last minute of continuous trading will be applied as the closing price.
24. A summary of the closing price determination algorithm is included in Appendix IV for reference.

Official Trading Hours and Closing Price Dissemination

25. With the introduction of the closing auction session, the official trading hours of the securities market will be extended accordingly. The market will close at 16:10 or 12:40 as the case may be once order matching commences after the closing auction session. Appendix V contains a detailed illustration of the market model after change.
26. Under normal business circumstances, HKEx expects that securities closing prices will be disseminated to the market within 5 minutes (ie before 16:15 or 12:45) after the close of the trading session (ie 16:10 or 12:40).

PART D: RESPONSES TO SPECIFIC COMMENTS

27. We set out below our responses to some specific comments which may be of interest to the market. The summary statistics in Appendix II give a broad indication of the frequency with which these comments were raised by respondents.

Trading Hours and Trade Operations Issues

28. Comments received: There were comments that the duration for order input under the original proposal might not be sufficient.
29. HKEx's response: We have reviewed the practices in selected overseas markets in light of such comments. We recognise that there is no universal consensus as to what is the optimal, or at least adequate, time setting that works best for all. However, in light of the extensive retail participation in the Hong Kong market, we are of the view that a slight extension of the order input period and the pre-order matching period can be justified. We have therefore adjusted the duration of the order input period (extended from 5 minutes to 8 minutes) and that of the pre-order matching period (extended from 1 minute to 2 minutes) in the implementation model explained in paragraph 18.
30. Comments received: Some respondents suggested that there should be a blocking period after the close of the continuous trading session to allow sufficient time for order confirmation and avoid confusion during transition to the closing auction session. They mentioned that with a short break they would be able to clearly identify a transition to the closing auction session. Also they could make use of the extra time for order maintenance (eg cancelling outstanding orders carried forward from the continuous trading session per clients' instructions).
31. HKEx's response: We do not consider it necessary to include a blocking period. Based on our extensive review of overseas market practices, closing auction session is generally considered as an immediate and uninterrupted extension of the continuous trading session. Also, orders carried forward to the closing auction session can be cancelled or amended per clients' instructions before commencement of the pre-order matching period at 16:08 or 12:38.
32. Comments received: Many respondents agreed that the closing time for derivatives trading should be extended to maintain the current window of 15 minutes between the closing of the cash market and derivatives market.
33. HKEx's response: Upon implementation of the proposed closing auction session in the cash market, the trading hours for stock index futures/options (SIFO) will be extended to 16:30 for normal day trading, or 13:00 for half day trading as the case may be, except on the last trading day. The time window allows market participants to adjust their hedging positions relating to structured products based on the stock closing prices. There will be no change to the closing time (ie 16:00) for SIFO on the last trading day, as well as for stock futures/options (SFO) in general. The arrangements are largely in line with international practices. The Derivatives Market Consultative Panel was consulted in May 2007 regarding the implications of the proposed closing auction session to the derivatives market, and the Panel supported the proposed changes above. A comparison of the existing and proposed derivatives market closing time is set forth below:

Closing Time except on the Last Trading Day

Market	Normal Day Trading		Half Day Trading (eg Christmas eve)	
	Existing	Proposed	Existing	Proposed
SIFO	16:15	16:30	12:30	13:00
SFO	16:00	16:00	12:30	12:30

Closing Time on the Last Trading Day

Market	Existing	Proposed
SIFO	16:00	16:00
SFO	16:00	16:00

34. Comments received: Some respondents were of the view that input, amendment or cancellation of at-auction limit orders should always be allowed including during the pre-order matching period.
35. HKEx's response: We consider the pre-order matching period as an integral part of our auction design and an important element to safeguard against gaming behaviour. During the pre-order matching period, only at-auction orders are accepted and existing orders cannot be modified or cancelled. With this arrangement, it can avoid significant change in the IEP due to withdrawal of orders immediately before the commencement of order matching. So far we see no significant issues or drawbacks for this arrangement during the pre-opening session.
36. Comments received: Some respondents suggested eliminating at-auction orders, leaving only at-auction limit orders as the acceptable order type for closing auction. They claimed that removing at-auction orders would encourage market participants to place at-auction limit orders early to gain priority at price and contribute to better price discovery by attracting more liquidity.
37. HKEx's response: We are of the view that at-auction orders (with no specified price but a higher execution priority) should not be forbidden and that market participants should be able to choose between order types depending on their price and execution preference. Maintaining the two different order types for auction allow the distinction between orders of market participants who are price sensitive (at-auction limit orders will likely be used) and those who are trying to maximize the chances of execution (at-auction orders will likely be used).
38. Comments received: Some respondents mentioned about certain potential limitations of using the existing algorithm for determining the IEP in cases where the order book contains no at-auction limit orders on either the bid or ask side, or both sides. They mentioned that no IEP, and thus no order matching, could be established in such cases. Other respondents questioned the logic of giving priority to at-auction orders.

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39. HKEx's response: According to existing rules adopted in the pre-opening session, the IEP of a security will only be calculated if the order book is crossed (ie the highest bid price of the buy at-auction limit orders is equal to or higher than the lowest ask price of the sell at-auction limit orders). When there are no at-auction limit orders on either the bid or ask side, or both sides of the order book, such criterion is not met and there will be no IEP. We agree that additional algorithmic rules could be considered for handling these and other special cases, but since any change to the existing algorithm can have significant market impact we intend to conduct a separate exercise after implementation of the closing auction to review the overall logic together with our Exchange Participants before determining any enhancements to be made.

Short Selling Restrictions

40. Comments received: One respondent enquired about whether outstanding short selling orders can be carried forward from the continuous trading session to the closing auction session. A view expressed by another respondent is that short selling orders should be allowed during auction sessions if the tick rule is removed.
41. HKEx's response: Under existing rules, a short selling order may only be inputted into AMS/3 during the continuous trading session. We concur with the view that when the tick rule is removed or suspended, short selling should be permitted during auction sessions. We have proposed this change to the SFC for discussion, and a separate announcement would be made to the public once SFC's approval has been sought.

The Random Closing Alternative

42. Comments received: There was a divergence of views as to whether auction matching should start at a random or fixed time. Some respondents advocated the random closing method and considered it as a key factor in mitigating gaming attempts. Other respondents expressed a preference for fixed closing as they believed a simple closing auction mechanism mirroring the current open auction will minimize cost/time for the market to adapt to the new closing procedures.
43. HKEx's response: Given that the pre-order matching period by design already serves as a control mechanism against gaming behaviour, the random closing method will not be adopted as part of the initial implementation in order to simplify the implementation process. However, we will closely monitor trading behaviour and will evaluate the need for imposing random closing or other control measures for enhancing the closing auction mechanism if warranted.

Implications for Structured Product Liquidity Providers

44. Comments received: One respondent sought clarification on the role of liquidity providers of derivative warrants and exchange traded funds during the closing auction session.

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45. HKEx's response: We are of the view that structured product liquidity providers should be exempted from their liquidity provision obligations during the closing auction session. This mirrors the existing model for the pre-opening session.

Implications for Callable Bull/Bear Contracts

46. Comments received: One respondent sought clarification on the rules to determine the residual values of a callable bull/bear contract if the closing auction session is to be introduced.
47. HKEx's response: Under existing procedures during the pre-opening session, only the final IEP of an underlying Hong Kong equity of a callable bull/bear contract will be considered for determining whether a Mandatory Call Event (MCE) is triggered. Before the end of the two following trading sessions after the session in which the MCE occurred, the respective issuer will have to publish an announcement on the residual value and any other related information. The pre-opening session and morning session are considered as one trading session in this context. We are of the view that a consistent approach should be adopted for the closing auction session. As such, during the closing auction session, only the final IEP will be considered for determining whether a MCE is triggered, and the afternoon session and the closing auction session should be considered as one single session for the purpose of determining the residual value.

PART E: IMPLEMENTATION PLAN

48. The implementation model proposed in this document is largely similar to the original model except that the durations of the order input period and pre-order matching period have been extended to 8 minutes and 2 minutes respectively in response to market feedback.
49. As the effective trading hours of the cash and derivatives markets will be extended due to the implementation of the closing auction session, HKEx Listing Division will propose to the Listing Committee to revise the operational schedules for news dissemination of decisions on dividends and results by listed issuers from the existing practice of after 16:15 to after 16:30.
50. We will submit the necessary trading rule amendments governing the closing auction session to the SFC for approval in due course.
51. All finalised amendments to the Trading Rules and Listing Rules will be separately announced to the public.
52. Investor education and training for practitioners are crucial for market acceptance and smooth implementation of the proposed closing auction. We will provide extensive training and educational materials for promoting public awareness of the operation of the closing auction session prior to its implementation.
53. We recognise the need to set a realistic timeframe for all market participants to plan ahead. It is tentatively scheduled that the implementation of the closing auction session will take place in February 2008.

APPENDIX I: LIST OF RESPONDENTS

Exchange Participants

Barclays Capital Asia Limited

BNP Paribas

BOCI Securities Limited

Celestial Securities Limited

Citigroup Global Capital Markets

Hang Seng Securities Limited

HSBC Broking Services (Asia) Limited

I-Access Investors Limited

J.P. Morgan Broking (Hong Kong) Limited

KBC Financial Products Trading Hong Kong Limited

Lehman Brothers

Macquarie Equities (Asia) Limited

Merrill Lynch (Asia Pacific) Limited

Morgan Stanley Dean Witter Asia Limited / Morgan Stanley Dean Witter Hong Kong Securities Limited

SG Securities (HK) Limited

UBS Securities Hong Kong Limited

Investment Management and Advisory Firms

Fidelity Investments Management (HK) Limited

Gandhara Advisors Asia Limited

HSBC Investments (Hong Kong) Limited

Banks

The Bank of East Asia Limited

The Hongkong and Shanghai Banking Corporation Limited

Broker Association

Hong Kong Stockbrokers Association

Law Firm

Clifford Chance

APPENDIX II: SUMMARY STATISTICS OF RESPONDENTS' VIEWS

Respondents' Views on the Closing Auction Proposal	Number of Responses	Addressed under Paragraph
▪ In favour	21	#7
▪ Neutral	0	
▪ Not in favour	1	
▪ Not indicated	1	

Comments on Trading Hours and Trade Operations Issues	Number of Responses	Addressed under Paragraph
▪ Suggested that the originally proposed order input period may not be sufficient	4	#28 and 29
▪ Proposed to include a blocking period before the order input period	2	#30 and 31
▪ Agreed that the closing time for derivatives trading should be extended to maintain the current window of 15 minutes between the closing of the cash market and derivatives market	5	#32 and 33
▪ Suggested that amendment or cancellation of orders should always be allowed, including during the pre-order matching period	5	#34 and 35
▪ Suggested eliminating at-auction orders, leaving only at-auction limit orders as the acceptable order type for closing auction.	2	#36 and 37
▪ Mentioned about certain potential limitations of using the existing algorithm for determining the IEP	4	#38 and 39
▪ Sought clarification on short selling restrictions	1	#40 and 41
▪ Sought clarification on the implications for structured product liquidity providers	1	#44 and 45
▪ Sought clarification on the implications for callable bull/bear contracts	1	#46 and 47

Respondents' Views on Random Closing Alternative	Number of Responses	Addressed under Paragraph
▪ In favour	5	#42 and 43
▪ Neutral	2	
▪ Not in favour	3	
▪ Not indicated	13	

Lead Time Required for System Changes	Number of Responses	Addressed under Paragraph
▪ Minimal or less than 1 month	3	#53
▪ 1 month to 3 months	2	
▪ More than 3 months but less than 6 months	1	
▪ 6 months or more	2	
▪ Not precisely indicated	15	

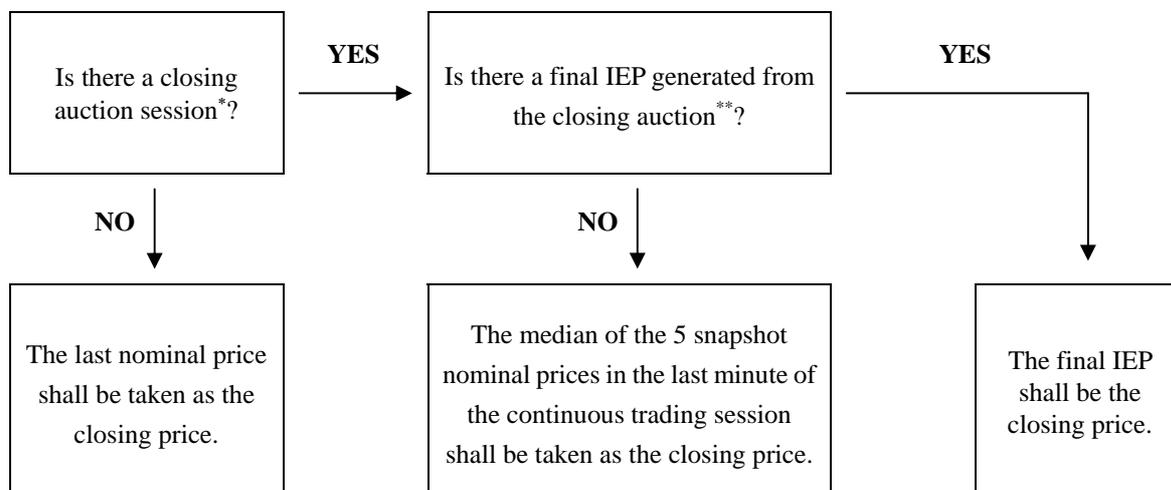
APPENDIX III: RULES FOR DETERMINING THE IEP

Extracts from the Rules of the Exchange

- 501H.(1) An IEP will be calculated according to the following rules only if the highest bid price of the buy at-auction limit orders is equal to or higher than the lowest ask price of the sell at-auction limit orders:
- (a) the IEP shall be one of the bid prices or ask prices which falls within the range of the highest bid price of the buy at-auction limit orders and the lowest ask price of the sell at-auction limit orders (inclusive of both prices) at which the aggregate size of the trades to be concluded based on the methodology specified in Rule 517(1)(a) is maximised;
 - (b) if more than one price satisfies Rule 501H(1)(a), the IEP shall be the price at which the normal order imbalance is the lowest. For the purposes hereof, normal order imbalance, in relation to a price, means the difference between the aggregate size of the buy at-auction orders and the buy at-auction limit orders with bid prices at or better than that price and the aggregate size of the sell at-auction orders and the sell at-auction limit orders with ask prices at or better than that price;
 - (c) if more than one price satisfies Rule 501H(1)(b), the IEP shall be-
 - (i) the highest of such prices if in relation to each and every of such prices, the aggregate size of the buy at-auction orders and the buy at-auction limit orders with bid prices at or better than that price is greater than the aggregate size of the sell at-auction orders and the sell at-auction limit orders with ask prices at or better than that price; or
 - (ii) the lowest of such prices if in relation to each and every of such prices, the aggregate size of the buy at-auction orders and the buy at-auction limit orders with bid prices at or better than that price is smaller than the aggregate size of the sell at-auction orders and the sell at-auction limit orders with ask prices at or better than that price;
 - (d) if more than one price satisfies Rule 501H(1)(b) and 501H(1)(c) does not apply, the IEP shall be the price which is the closest to the previous closing price^{*}. If two prices are of equidistant from the previous closing price^{*}, the IEP shall be the higher of the two prices. However, if the previous closing price^{*} is not available, the IEP shall be the highest of such prices.

^{*} While the previous closing price is used as a reference price for determining the IEP during the pre-opening session under the existing Rule 501H(1)(d), a different reference price (eg the last nominal price during the preceding continuous trading session) will probably be applied for IEP determination during the closing auction session.

APPENDIX IV: SUMMARY OF CLOSING PRICE DETERMINATION ALGORITHM



* There may be no closing auction session if the continuous trading session is terminated or adversely affected by an emergency, including but not limited to fire or other accident, typhoon, rainstorm, computer malfunction and other similar events.

** Consistent with existing rules adopted in the pre-opening session, the final IEP of a security will only be calculated if the order book is crossed (ie the highest bid price of the buy at-auction limit orders is equal to or higher than the lowest ask price of the sell at-auction limit orders) at the end of the pre-order matching period. In the case where such criterion is not met, there will be neither auction matching nor final IEP generated from the closing auction.

APPENDIX V: MARKET MODEL AND OFFICIAL TRADING HOURS AFTER CHANGE

For Normal Day Trading

Trading Sessions	Pre-opening				Morning	Extended Morning	Afternoon	Closing Auction	
Auction Periods	Order Input	Pre-order Matching	Order Matching	Blocking	N/A	N/A	N/A	Order Input	Pre-order Matching
Operating Hours	9:30 - 9:45	9:45 - 9:50	9:50 - 9:58	9:58 - 10:00	10:00 - 12:30	12:30 - 14:30	14:30 - 16:00	16:00 - 16:08	16:08 - 16:10
Market Mechanism	Single-price Call Auction				Continuous Trading		Single-price Call Auction		
Security Coverage	All Equities, Warrants, Callable Bull/Bear Contracts, Exchange Traded Funds and Other Securities Traded on the Main Board and Growth Enterprise Market					Extended Trading Securities	All Equities, Warrants, Callable Bull/Bear Contracts, Exchange Traded Funds and Other Securities Traded on the Main Board and Growth Enterprise Market		
Order Entry	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Acceptable Order Types	At-auction / At-auction Limit	At-auction	N/A	N/A	Limit / Enhanced Limit / Special Limit		At-auction / At-auction Limit	At-auction	
Order Amendment and Cancellation	Yes	No	No	No	Yes	Yes	Yes	Yes	No

For Half Day Trading (e.g. Christmas Eve)

Trading Sessions	Pre-opening				Morning	Closing Auction	
Auction Periods	Order Input	Pre-order Matching	Order Matching	Blocking	N/A	Order Input	Pre-order Matching
Operating Hours	9:30 - 9:45	9:45 - 9:50	9:50 - 9:58	9:58 - 10:00	10:00 - 12:30	12:30 - 12:38	12:38 - 12:40
Market Mechanism	Single-price Call Auction				Continuous Trading	Single-price Call Auction	
Security Coverage	All Equities, Warrants, Callable Bull/Bear Contracts, Exchange Traded Funds and Other Securities Traded on the Main Board and Growth Enterprise Market						
Order Entry	Yes	Yes	No	No	Yes	Yes	Yes
Acceptable Order Types	At-auction / At-auction Limit	At-auction	N/A	N/A	Limit / Enhanced Limit / Special Limit	At-auction / At-auction Limit	At-auction
Order Amendment and Cancellation	Yes	No	No	No	Yes	Yes	No

▲ Matching of closing auction orders commences after official end of the trading session at 16:10 or 12:40 as the case may be.

