

Revisions to Trading Rules for Strengthening Functions of Cash Equity Market in Connection with Launch of Next Generation Trading System

May 11, 2023

Tokyo Stock Exchange, Inc.

I . Purpose

From the perspective of responding to changes in the environment surrounding the market and diversifying investor needs, as well as further improving resilience, convenience for market users and international competitiveness, Tokyo Stock Exchange, Inc. (TSE) published an "Action Program for Strengthening the Functions of the Cash Equity Market" in October 2021. TSE is also preparing to upgrade its cash equity trading system, arrowhead, based on its basic policies of "maximizing trading opportunities (improving resilience)" and "enhancing user convenience." In light of these circumstances, the trading rules will be revised at the same time as the system upgrade of arrowhead scheduled for November 2024.

Specifically, trading hours will be extended to maximize trading opportunities for market participants, and a Closing Auction will be introduced for trading at the close of the afternoon session in order to improve transparency of closing price formation.

II . Overview

Item	Details	Remarks
1. Extension of trading hours (JST)	- Trading hours for the afternoon session will be from 12:30 to 15:30.	- Zaraba trading will end at 15:25, and the newly introduced Closing Auction will take place at 15:30. - For products not eligible for the Closing Auction (bonds, convertible bonds, and exchangeable corporate bonds), Zaraba trading will continue until 15:30. - Among bonds, trading hours for JGBs will be from

Item	Details	Remarks
	<ul style="list-style-type: none"> - Trading hours for single issue trading and basket trading on the ToSTNeT market will be from 8:20 to 18:00. - Trading hours for closing price trading on the ToSTNeT market (same day closing price, afternoon session VWAP, and all day VWAP) will be from 15:30 to 16:30. 	<p>12:30 to 14:00, the same as the current trading hours.</p> <ul style="list-style-type: none"> - Trading hours for transactions settled on the second day counting from the day the trading contract is concluded will be from 8:20 to 12:30, the same as the current trading hours.
<p>2. Introduction of Closing Auction</p>	<ul style="list-style-type: none"> - A Closing Auction will be introduced for trading at the close of the afternoon session. - An order acceptance time (pre-closing session) will be held for five minutes from the close of Zaraba trading (at 15:25), followed by an Itayose conducted at 15:30. 	<ul style="list-style-type: none"> - Bonds, convertible bonds, and exchangeable corporate bonds are not eligible for the Closing Auction. - Similar to before trading begins, order book information will be disseminated in the pre-closing session. - "On close" orders and Funari orders (market on close orders when limit orders were not executed during Zaraba) placed after the close of the morning session will be registered on the order book at the start of the pre-closing session (decisions on price restrictions for

Item	Details	Remarks
	<ul style="list-style-type: none"> - Even in cases where conditions for Itayose are not met within the executable price range, if there is an order eligible for execution at the upper (lower) limit of said price range, the order will be executed with the upper (lower) limit of said price range 	<p>"on close" short sell limit orders will also be made at the start of the pre-closing session).</p> <ul style="list-style-type: none"> - Orders registered in the pre-closing session (including "on close" orders and Funari orders registered at the start of the pre-closing session) will be treated as simultaneous orders. - Measures to prevent inappropriate transactions (modification of order prices and order cancellations that will affect expected matching prices) in the pre-closing session, such as providing examples of the main types of cancellations or other activity subject to monitoring by TSE and types that would be considered unproblematic, will be announced separately. - We will also continue to consider the need to introduce additional frameworks to prevent inappropriate transactions. - The executable price range at the Closing Auction is twice the usual renewal price interval, the same as for the close of the trading session currently. - Orders subject to the special execution method will be orders placed at the upper (lower) limit of the



Item	Details	Remarks
	based on time priority (special execution).	<p>executable price range and orders placed at prices that take precedence over said limit.</p> <ul style="list-style-type: none"> - When the special execution method is adopted, orders will be not treated as simultaneous orders but executed based on time priority. Also, they will not be grouped by trading participant. - If a trade is executed at the upper (lower) daily price limit, as before, an allocation at the upper (or lower) daily price limit will be conducted.
3. Other	- Other necessary revisions will be made.	

III. Implementation Date (Planned)

These revisions will be implemented at the time of the arrowhead system upgrade (November 5, 2024).

Cash Equity Market Trading Hours

	8	9	10	11	12	13	14	15	16	17	18
arrowhead (auction)		9:00 - 11:30				12:30 - <u>15:30*</u>			<u>*Closing auction from 15:25 to 15:30</u>		
ToSTNeT- 1 (off-auction: single stock/basket)	8:20 - <u>18:00</u>										
ToSTNeT- 2 (off-auction: closing price)	8:20 - 8:45			11:30 - 12:15						<u>15:30 - 16:30</u>	
ToSTNeT- 3 (off-auction: off-auction own share repurchase) *Same as Off-auction Distribution	★ 8:45										

  Changed trading hours



Notes:

1. For products that do not have a closing auction (bonds, convertible bonds and exchangeable corporate bonds), the continuous trading auction will continue until 15:30.
2. The trading hours of ToSTNeT-1 transactions being settled at T+1 will be 8:20 - 12:30, as is the case now.
3. The trading hours for government bonds will be 12:30 - 14:00, as is the case now.

(Reference) Derivatives Market Trading Hours



	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Equity Index Futures and Options (auction)	8:45 - 15:45								17:00 - 30:00														
Equity Index Futures and Options (off-auction)	8:20 - 16:30								16:45 - 30:00														
Commodity Futures and Options (auction)	8:45 - 15:45								17:00 - 30:00														
Commodity Futures and Options (off-auction)	8:20 - 16:30								16:45 - 30:00														
JGB Futures and Options (auction)	8:45 - 11:02		12:30 - 15:02				15:30 - 30:00																
JGB Futures and Options (off-auction)	8:20 - 15:15								15:25 - 30:00														

  Changed trading hours

As an exception, trading hours for other products are as follows:

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|--|---|--|
| 1 Securities Options | Auction: 9:00 - 11:35, 12:30 - 15:45 | Off-auction: 8:20 - 16:30 |
| 2 Nikkei 225 VI Futures and Rubber Futures | Auction: 9:00 - 15:45 , 17:00 - 19:00 | Off-auction: 8:20 - 16:30 , 16:45 - 19:00 |
| 3 Electricity Futures (TOCOM) | Auction: 8:45 - 15:45 , 17:00 - 19:00 | Off-auction: 8:20 - 16:30 , 16:45 - 19:30 |
| 4 TAIEX Futures | Auction: 8:45 - 15:45 | Off-auction: none |
| 5 Flexible Options (single stocks) | Auction: none | Off-auction: 8:20 - 16:30 , 16:45 - 18:00 |

Outline of Closing Auction

- A Closing Auction will be introduced for cash equity auction trading (arrowhead) at the end of the afternoon trading session, in order to increase transparency in closing price formation.
- To conduct the afternoon close Itayose fully reflecting supply and demand from a diverse range of investors, an order acceptance time will be set up after the close of the Zaraba session.

Item	Details	Notes
Order acceptance time (Pre-Closing)	15:25 - 15:30 (5 minutes)	<ul style="list-style-type: none"> - TSE will publish guidelines on tackling order price modifications and order cancellations that could affect expected matching prices (such as by providing examples of those that would be subject to monitoring or those that would be considered unproblematic). - TSE will also continue to consider the need to introduce additional frameworks to prevent inappropriate transactions.
Executable price range	Twice the renewal price interval	<ul style="list-style-type: none"> - No changes to the current executable price range.
Handling of orders: "on close"	"On close" orders and Funari orders will be processed at the start of Pre-Closing (15:25)	<ul style="list-style-type: none"> - Decisions on price restrictions for "on close" short sell limit orders will also be made at the start of Pre-Closing
Handling of orders: simultaneous orders	Orders registered during Pre-Closing will be handled as simultaneous orders.	<ul style="list-style-type: none"> - Includes "On Close" orders and Funari orders that are registered at the start of Pre-Closing
Special Execution (Improvement of closing price opportunities)	Even in cases where conditions for Itayose are not met within the executable price range, if there is an order eligible for execution at the upper (lower) limit of said price range, the order will be executed using that price as the execution price (see next page).	<ul style="list-style-type: none"> - Orders subject to the special execution method will be a) orders placed at the upper (lower) limit of the executable price range and b) orders placed at prices that take precedence over said limit. - If a trade is executed at the upper (lower) daily price limit, as before, an allocation at the upper (or lower) daily price limit will be conducted.



• An Itayose will not be conducted.
• "On close" orders will be processed.

• Order book information will be disseminated in the same way as before opening.
• New orders and changes/cancellations of existing orders can be placed.

• An Itayose will be conducted after the order acceptance time.
• The executable price range will be the same as the current one.

*Last price of Zaraba ±Renewal price interval ×2

Example of Special Execution

Agg.	Sell	MO	Buy	Agg.
10	10		40 (5)	40
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		JPY230	20 (1)	60
		JPY220	10 (3)	70
		:		
160	50	JPY196	10 (7)	80
110	40 #	JPY195 #	20 (2)	100
	20	JPY194	20 (4)	120
		:		
50	20	JPY190	10 (6)	130
		:		
30	10	JPY185		140
		:		
20	10	JPY180	20	160

Upper limit of executable price range

Subject to execution allocation (time priority)

Renewal price interval × 2

Last price

Note: (1) through (7) indicate the order in which the orders subject to Special Execution were placed (not taking into account which broker placed the order)

1. In the above case, the price matched through Itayose is JPY 195, which is outside the executable price range at close (JPY 190).
2. Since there are both buy and sell orders subject to Special Execution, 50 units of the sell orders are executed with the buy orders, allocated in the order in which they were placed, at execution price JPY 190, which is the upper limit of the executable price range at close.