



Japan Electronic Trading Conference 2023

TSE's Initiatives to Strengthen the Functions of Cash Equity Market

Exchange & beyond

Tokyo Stock Exchange, Inc.

October 5th, 2023



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Reference



Listing Rules

- Action to Implement Management that Conscious of Cost of Capital and Stock Price
- Reduction of Investment Unit

Trading Rules

- Optimization of Tick Size for TOPIX Mid400 Constituents
- Updating Cash Equity Trading System (November, 2024)
 - Change of Trading Hours, Introduction of Closing Auction, Strengthen Market Infrastructure, etc.

Others

- Start Calculation of JPX Prime 150 Index
- Introduction of Active ETFs

Overall Schedule for Implementation of the Trading Rules (Cash Equity Trading System Upgrade)

- Respond to changes in the market environment, diversifying investor needs, to further enhance resilience, market convenience, and international competitiveness, we plan to extend trading hours and introduce a closing auction when we upgrade the cash equity trading system
- ✘ Based on discussions at the Council for Recurrence Prevention Measures in Response to System Failure and the Working Group for Strengthening the Functions of the Cash Equity Market, the response measures was announced in Oct. 2021 in the “Action Program for Strengthening the Functions of the Cash Equity Market”
- **Implemented the publication of trading rules outline and public comments on 11th May, 2023. the new trading rules were released on 20th September, 2023.**


FY2021		FY2022		FY2023		FY2024	
Second half		First half		First half		Second half	
★ Public announcement of action programs Briefings for related organizations, etc.				★ Publication of trading rules outline (Public comments)	★ Announcement the new trading rules		
	★ First briefing for participants		★ Second briefing for participants	★ Briefing for asset management companies	★ Third briefing for participants		
Explanation and provision of information to market participants, etc.							
Concretization of how to proceed, etc.	Consider among each business category and type of business			Responding to extension of trading hours at Each Company			
		★ Relate to system upgrades Disclosure of connection specifications				Various system tests, Drill	
System Renewal, Implementation of trading hours extension (Nov. 5)							

Optimization of Tick Size for Middle Liquidity Stocks

Optimization of Tick Size for Middle Liquidity Stocks (TOPIX Mid400 Constituents)

- With regard to medium-liquidity stocks, the costs associated with tick sizes were high internationally. Therefore, **we optimized the tick sizes of medium-liquidity stocks (TOPIX Mid400) from June 5th of this year** through discussions on “Financial System Council WG on market system” so that **they can be executed at a better price, mainly by individual investors and long-term investors.**

[Tick Weight (Tick size / Stock Price) by liquidity in Japan, the U.S. and Europe]

	Tick Size Regime	High Liquidity Stocks	Medium Liquidity Stocks	Low Liquidity Stocks
Japan(TSE)	Liquidity-based tick size table	1-5bps	 10-15bps	10-15bps
US	Single table	0.92bps	1.37bps	9.19bps
Europe	Liquidity-based tick size table	1-2bps	2-5bps	5-10bps

- ※ For Japan, the stocks for calculating the average tick size ranges are high liquidity: TOPIX100 constituents; medium liquidity: TOPIX Mid400 constituents; and low liquidity: other stocks
- ※ For the US, the stocks for calculating the average tick size ranges are high liquidity: DJIA constituents; medium liquidity: S&P 500 constituents; and low liquidity: Russell 2000 constituents(used Aug. 2022 data).
- ※ For Europe, the stocks for calculating the average tick size ranges are high liquidity: daily average number of executions (9,000 or more); medium liquidity: daily average number of executions (2,000 to 9,000); and low liquidity: daily average number of executions (600 to 2,000).

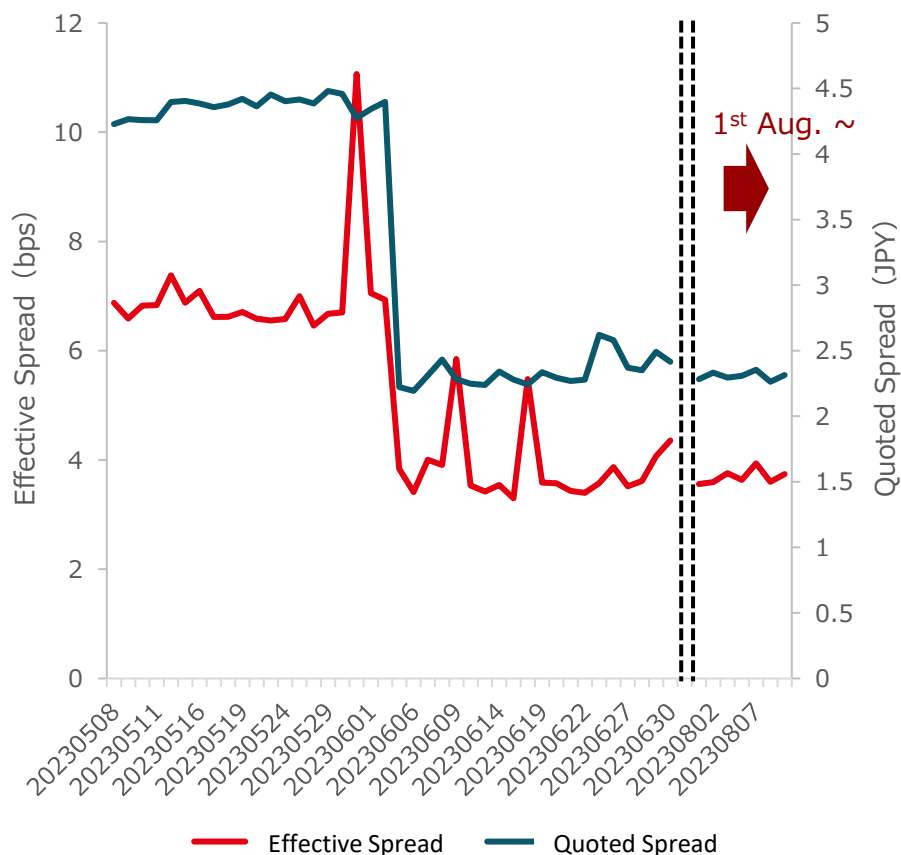
[Tick Size]

Stock Price (JPY)	Tick Size (JPY)	
	TOPIX500 Constituents	Other stocks
~1,000	0.1	1
~3,000	0.5	
~5,000	1	5
~10,000		5
~30,000	10	50
~50,000		100
~100,000		
:	:	:

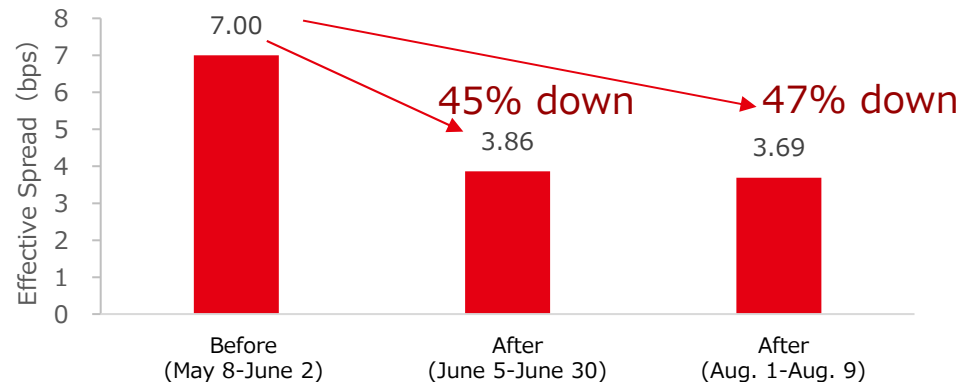
Impact : Optimization of tick size for TOPIX Mid400 constituents

- The goal of this measure, the decrease in execution cost, has been realized as shown in graph below. After August data has been stable.
- **JPY 460~470 million¹ decrease in execution costs per day** by decrease in effective spread.
- **The impact of reducing investor execution cost is JPY 110~120 billion per year**

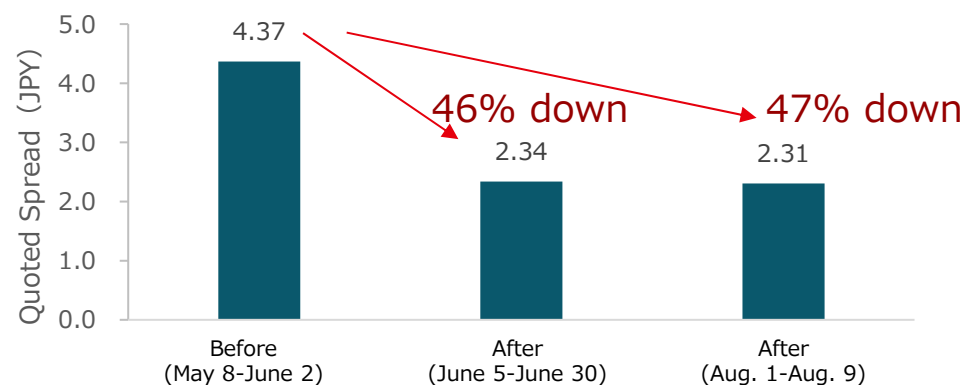
Effective Spread and Quoted Spread (Mid 400)



Average Effective Spread² (Mid 400)



Average Quoted Spread³ (Mid 400)



Source: Tokyo Stock Exchange

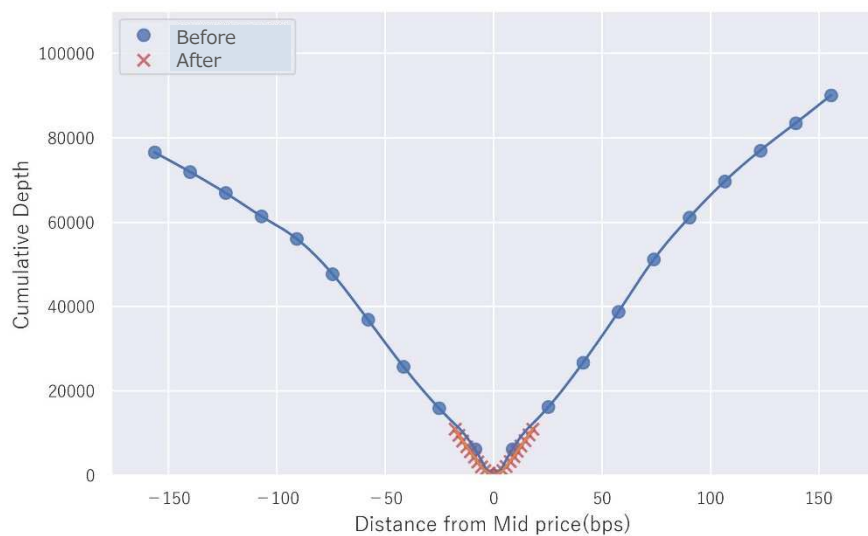
¹ Calculated based on trading value before the change (20 business days)

² The difference between the execution price and the actual price (mid-price of the BBO), standardized by the mid-price of the BBO. The actual execution cost incurred by the investor. Here we use the average of the Mid 400 constituents

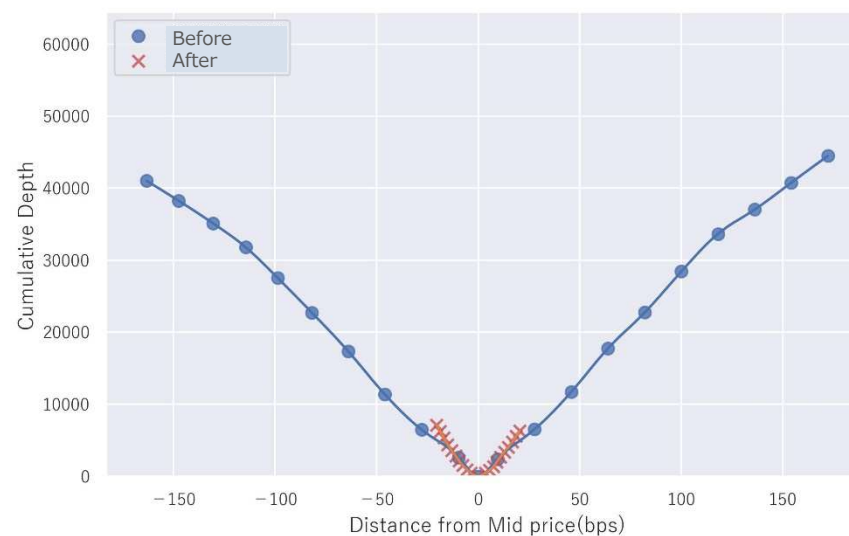
³ Time weighted average of (Best Offer price – Best Bid price). Here we use the average of the Mid 400 constituents

- Below graphs are accumulative depth before/after tick size change. (Tick size change ratio 90%, Median)
- Accumulative depth maintained even after the rule change.

Group 1 : Higher Trading Volume



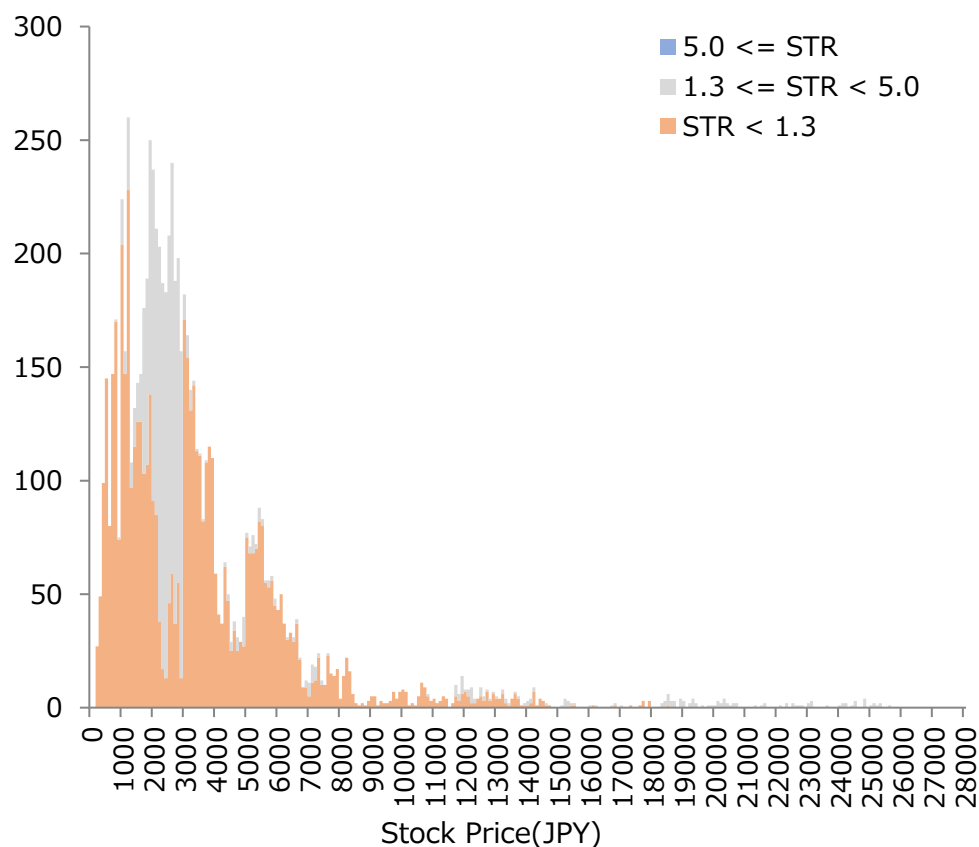
Group 2 : Lower Trading Volume



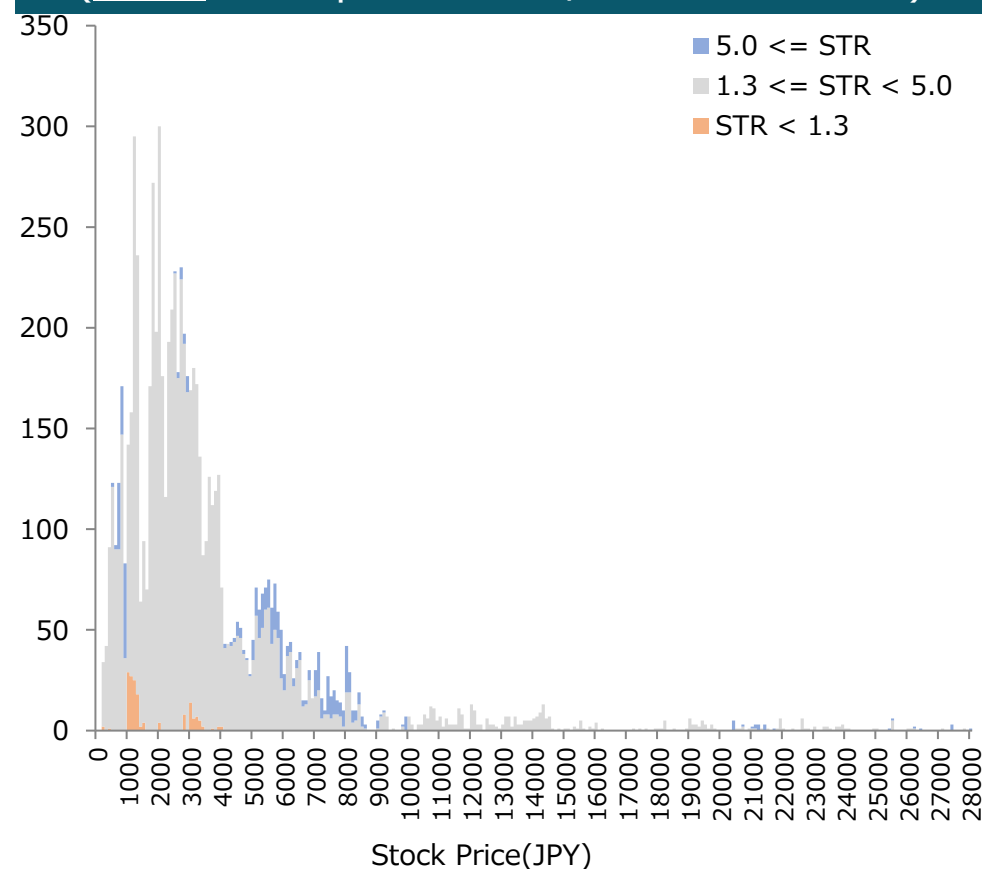
Appropriateness of the Tick Size

- The following chart shows the STR distribution of the TOPIX Mid400 constituents for the periods before and after the optimization of the tick sizes, and **the STRs are generally distributed within an appropriate range**

TOPIX Mid400 STR Distribution
(Before the Optimization/May 8-June 2)



TOPIX Mid400 STR Distribution
(After the Optimization/June 8-June 30)



Source: Tokyo Stock Exchange


¹ STR indicates how many ticks are separated by nominal spread (time-weighted average of best offer price – best bid price). In Europe, to determine the appropriate tick sizes, the STR is adjusted to keep it within the range of 1.3 to 5.0 under MiFID II, taking in account the appropriate trading price (execution cost) and the appropriate price discovery function







- In the major international capital markets, the appropriate tick sizes are stipulated by law, and all markets in the country have standardized tick sizes
- **On the other hand, in Japan, such regulation is not established yet and divergence has been occurred from foreign regulations**

Countries and regions	Unification of tick size	Legal Basis	Remarks
US	○	Reg NMS Rule 612	
Europe	○	MiFID II Article 50(3)	<ul style="list-style-type: none"> • Adoption of the same manner of best execution rules as Japan (execution markets are determined based not only on price, but also on cost, speed, and the possibility of execution)
Canada	○	UMIR 6.1(1)	
Australia	○	MIR/Competition Rule 9.4.1(1)	<ul style="list-style-type: none"> • Unified tick sizes as part of market regulation reforms necessary for inter-market competition
Japan	×	—	<ul style="list-style-type: none"> • There are differences in the tick sizes among markets, and the tick sizes on PTSs are much finer than those in Europe and the U.S. markets

Change of Trading Hours

Change of Trading Hours - Cash Equity Market

 Changed trading hours


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

Notes:

1. For products that do not apply 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.
4. Trading hours on the Sapporo, Nagoya, and Fukuoka Stock Exchanges will remain unchanged (Nagoya Stock Exchange, "The Exchange's Response to Trading Hours, etc." (September 28, 2022)).

Change of Trading Hours - Derivatives Market



 Changed 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 - <u>15:45</u>								<u>17:00</u> - 30:00														
Equity Index Futures and Options (off-auction)	8:20 - <u>16:30</u>								<u>16:45</u> - 30:00														
Commodity Futures and Options (auction)	8:45 - <u>15:45</u>								<u>17:00</u> - 30:00														
Commodity Futures and Options (off-auction)	8:20 - <u>16:30</u>								<u>16:45</u> - 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														

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

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

Efforts to Improve the Efficiency of Post-Market Close Operations for Investment Trusts

- The operations regarding to NAV calculation, etc. of investment trust, we have been promoting cross-industry discussions and coordination with the Investment Trust Association, Japan (JITA) and Trust Companies Association of Japan (TCAJ). Now that the timing of the extension of trading hours has been finalized, we would like to further cooperate in making preparations.

Past initiatives

1. Correspondence regarding calculation of NAV

- ① Identification and prioritization of measures to improve operational efficiency
 - Conduct study with JITA and TCAJ
- ② Acceleration of market data dissemination time by TSE and market data vendors
 - By conducting system modifications, Equity market data's delivery time will not be changed and derivatives market data's delivery time will be moved back 15 minutes not 30 minutes.
- ③ Streaming of NAV information linkage from asset management companies to news media
 - TSE was approached by a news media regarding the possibility of streaming the transmission of NAVs from asset management companies to news media

2. Correspondence related to time limits on sales of investment trust

- Check with related organizations regarding the time limits on sales of investment trust
- The investment trust sales companies' response to the postponement of application/cancellation time limits due to the extension of trading hours will be decided by each company.

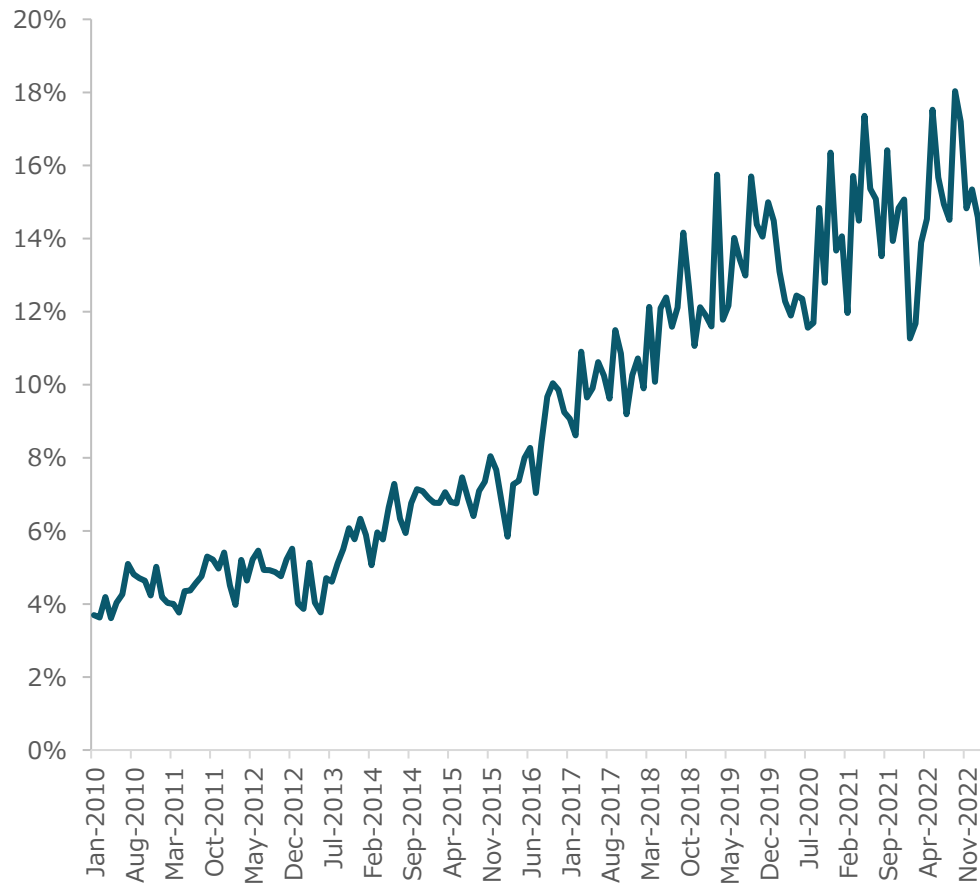
Correspondence

- ① TSE will accelerate explanations and dissemination of information to each asset management company, etc. (A briefing session for asset management companies was held on 28th Sep.)
 - ② Each asset management company is required to consider and prepare for subsequent operations, taking into account the impact of the extension of trading hours by 30 minutes and the postponement of the sending of pre-confirmation from brokers to asset management companies, etc.
 - ③ JITA has already issued a notice of encouragement to improve efficiency of operations on 12th Sep.
 - ④ TSE and JITA first confirmed the situation with the news media and are now coordinating to streamline the transmission of NAVs from the asset management company to the news media
-
- ① JITA is considering amending the rule that stipulates the time limits of "3 p.m." on sales of investment trust
 - ② Each asset management company and investment trust sales company is required to determine its own policy
 - ③ TSE has been disseminated the information through related organizations in order to promote consideration of investment trust sales companies

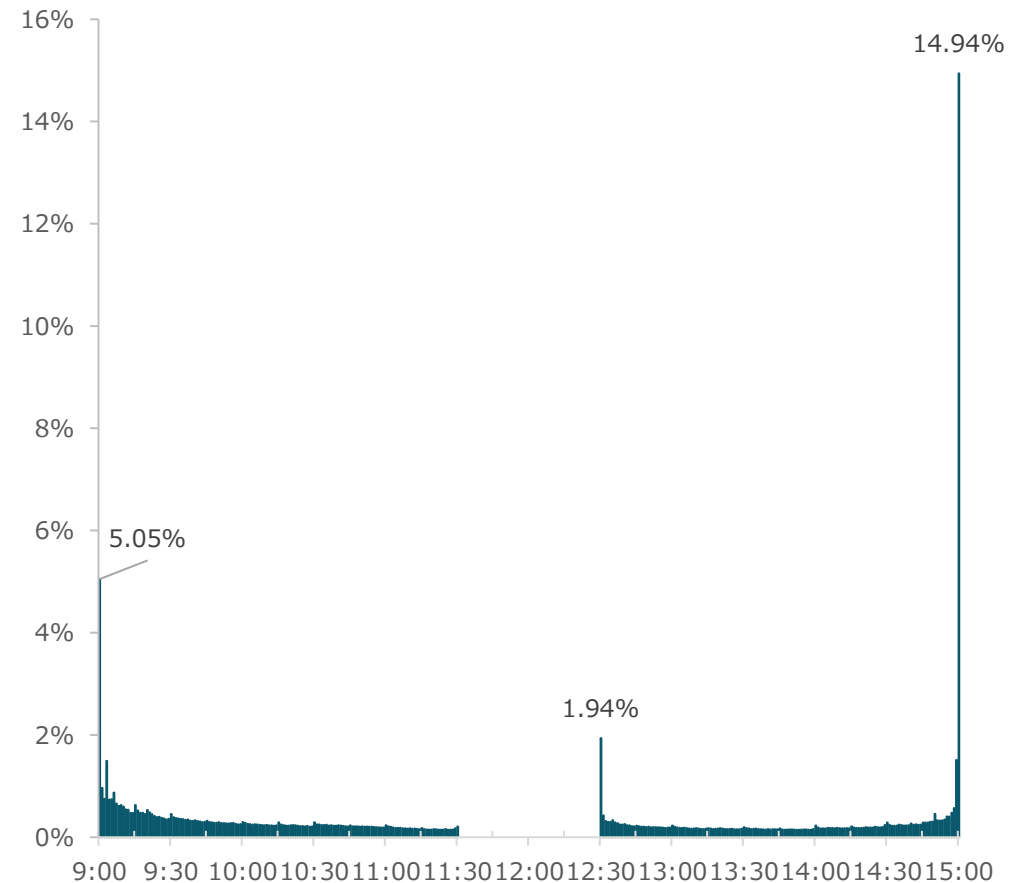
Introduction of Closing Auction

Closing Auction – Growing Importance of Close Itayose

The ratio of trading value at Afternoon Close Itayose (1st Section / Prime)



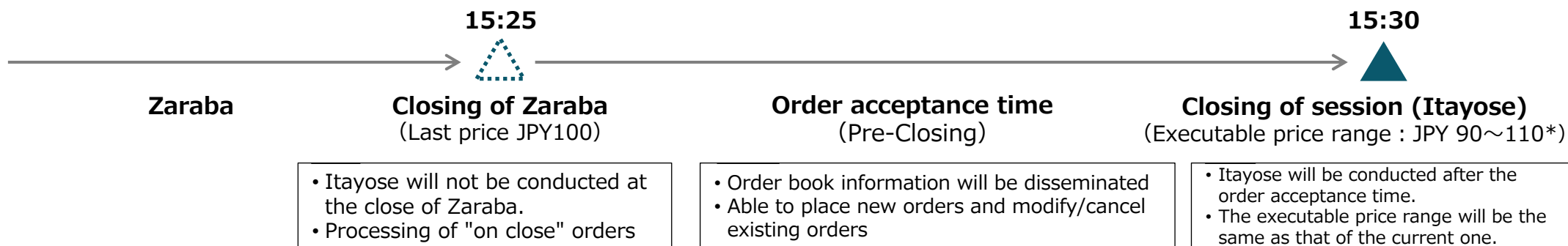
Intraday volume curve(1st Section / Prime, CY2022 average)



Closing Auction – Outline of Rules

- Expansion of the executable price range at afternoon close Itayose in November 2019
- Closing auction will be introduced to improve trade transparency and expand trading opportunities from November 2024

Item	Details	Notes
Order acceptance time (Pre-Closing)	15:25 - 15:30 (5 minutes)	- See next page for the policy on how to deal with inappropriate order
Executable price range	Twice the renewal price interval	- 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)	- 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.	- 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.	- 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.



* Last price at Closing of Zaraba(JPY 100) ± Renewal price range ×2

Policy for dealing with inappropriate forms of placing / canceling orders (Priority Monitoring Guideline)









- Plan to publish the priority monitoring guideline for Pre-Closing and to monitor for inappropriate forms of placing / canceling orders
- Also, plan to publish types of cancellation based on reasonable grounds (Unproblematic cancellation types) not to unduly restrict the investment behavior of investors

Object being monitored	Remarks
The order cancellation, etc. that affect the expected matching price at close	<ul style="list-style-type: none"> ● Priority monitoring time is <u>one minute just before the closing price is determined at the close of the afternoon session</u> ● Monitoring cancellation of orders that have priority over the expected matching price and exceed a certain volume ● Inquires are made to trading participants and alerts are issued as necessary

[Types of cancellations based on reasonable grounds]

	Example	Remarks
1	Order correction or cancellation made unavoidably just before the Itayose, due to the occurrence of news that would obviously cause a significant change in market conditions	<ul style="list-style-type: none"> ● If few others responded and only certain market participants made corrections or cancellations due to the news in question, a detailed investigation may be conducted.
2	Cancellation of an order that had been made due to an arbitrage opportunity between TSE products or between a TSE product and another domestic or foreign product, where this opportunity has been lost	<ul style="list-style-type: none"> ● If repeated frequently, a detailed investigation may be conducted to confirm specific investment strategies or other facts. ● A warning may be issued depending on the type of investment strategy that orders are based on.
3	Cancellation on reasonable grounds of an order which was aimed at hedging positions on other products	<ul style="list-style-type: none"> ● Same as above
4	Correction or cancellation of an order placed with incorrect details	<ul style="list-style-type: none"> ● Even if the corrections or cancellations are because of errors, if these kinds of actions are frequently repeated, a detailed investigation will be conducted.
5	Correction or cancellation to adjust order volume due to changes in the orderbook caused by corrections or cancellations by others	<ul style="list-style-type: none"> ● May investigate the details of the orders and specific investment strategies
6	Order correction or cancellation that is unlikely to affect price formation during the Itayose	<ul style="list-style-type: none"> ● If the cancellation or correction is deemed to fall under this category, TSE may choose not to make any inquiries.

[Reference] Trading Rules of Closing in Overseas Exchanges

	Types	Pre-Closing /Random	Restriction on Order Types	Execution Condition /Price Limit
	<ul style="list-style-type: none"> - Continuously from Zaraba to closing - One time matching 	-None	<ul style="list-style-type: none"> -Imposed -No orders other than imbalance orders allowed for 10 minutes prior to closing -No cancellation allowed for 2 minutes prior to closing 	<ul style="list-style-type: none"> -Within 10% from the last Zaraba price -If orders are matched at prices outside price range, they may be executed at upper/lower limit of price ranges
	<ul style="list-style-type: none"> - Closing auction type¹ - Retry up to twice 	<ul style="list-style-type: none"> -Provided -Maximum of 30 second random 	-None	<ul style="list-style-type: none"> - Execution of all market orders -Itayose price needs to be within 1% to 5% from the last stock price²
	<ul style="list-style-type: none"> - Closing auction type¹ 	<ul style="list-style-type: none"> -Provided -Maximum of 30 second random 	-None	<ul style="list-style-type: none"> -Itayose price needs to be within 2.5% to 5% from the last stock price
	<ul style="list-style-type: none"> - Closing auction type¹ 	<ul style="list-style-type: none"> -Provided (10 minutes) -Maximum of 1 minute random 	-None	- None
	<ul style="list-style-type: none"> - Closing auction type¹ 	<ul style="list-style-type: none"> -Provided -Maximum of 2 minute random 	<ul style="list-style-type: none"> -Imposed -No modification or cancellation allowed for 4 minutes prior to closing 	<ul style="list-style-type: none"> -Imposed -Price limit is imposed
	<ul style="list-style-type: none"> - Closing auction type¹ 	<ul style="list-style-type: none"> -Provided -Maximum of 1 minute random 	<ul style="list-style-type: none"> -Imposed -No modification or cancellation allowed for 1~2 minutes prior to closing 	<ul style="list-style-type: none"> -Within 10% from the last Zaraba price
	<ul style="list-style-type: none"> - Continuously from Zaraba to closing - One time matching 	-None	-None	<ul style="list-style-type: none"> -Execution of all market orders -Itayose price needs to be within 2.8% to 6% of last stock price
	<ul style="list-style-type: none"> - Closing auction type¹ 	-Provided	<ul style="list-style-type: none"> - Imposed -No modification or cancellation allowed for 1 minute prior to closing³ 	<ul style="list-style-type: none"> -Price limit is imposed

¹ A method providing order acceptance time between Zaraba and closing

² 1% for issues with high liquidity (SETS100), 5% for those with low liquidity

³ For the closing of the day session, the system does not incorporate a non-cancellation period as some have expressed the need to adjust their positions carefully at the close of the cash market afternoon session. However, in the rules for the closing of the day session, OSE prohibits the cancellation or modification of orders immediately prior to the afternoon close Itayose if the volume of orders exceeds a certain level, which is provided for each product.

Other Measures at the Timing of System Upgrade

Market by Order/Mass Cancellation (arrowhead 4.0)

- For TSE's market by order service, market data will be disseminated by an order.

Dissemination of Market by order

Sell order	Price	Buy order
15	JPY 102	
5	JPY 101	
	JPY 100	10 20 10
	JPY 99	10
	JPY 98	20 5

If a buy order of 10 units is newly placed at JPY 100

Current (FLEX Full)				
	Symbol	Sell/buy	Price	Quantity
New quote	8697	Buy	JPY 100	40 Units

- The total quantity of buy orders at JPY 100 is disseminated as order information.
- Users find out the quantity of a new order by comparing with the previous quantities

Market By Order					
	Symbol	Sell/Buy	Price	Quantity	OrderID
New quote	8697	Buy	JPY 100	10 Units	XYZ002

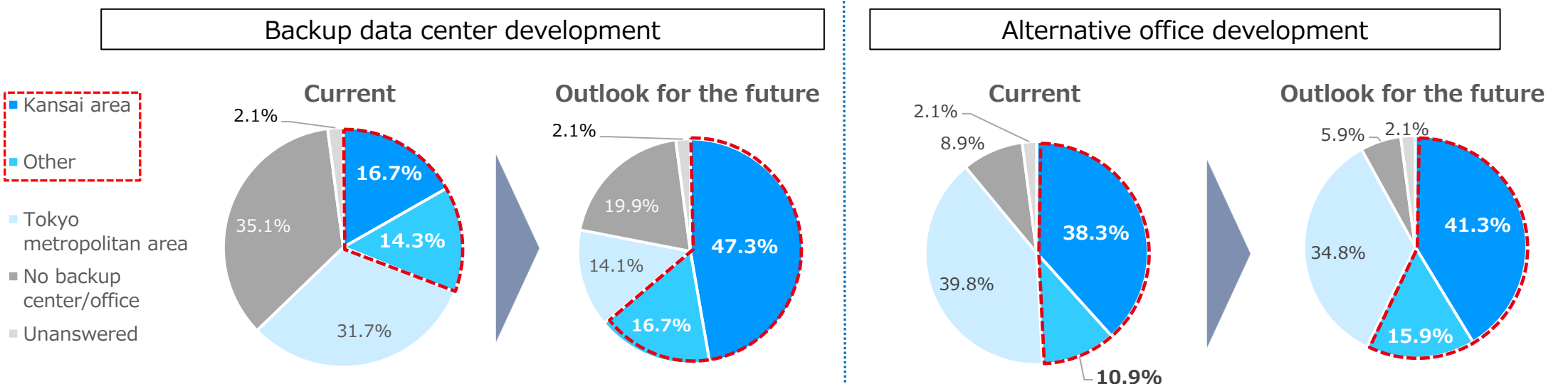
- Feature 1: Information on a relevant order including its quantity will be disseminated as new order information.
- Feature 2: The "Order ID" will be disseminated for the purpose of linking market information with a trading participant's own orders.

- We will introduce the function to cancel all eligible orders at once by a mass cancellation order. The conditions of use are as follows

- ✓ Target user : Users who have virtual servers on that the STP account is configured.
- ✓ How to use : Place the mass cancellation order that specifies the issue code, side, price, and trigger unit (STP account or virtual server).
- ✓ Target order : Orders that meet following conditions are cancelled.
 - placed from the virtual server that has the same STP account number as the virtual server that sent the mass cancellation order (or from the same virtual server)
 - on and above the specified price for the issue (in the case of specifying buy side)
 - ※Not cancel orders below the specified price or on the opposite side (sell/buy).
 - ※In case of specifying STP account as trigger unit, orders placed across the trading participants are cancelled.
- ✓ Notice : Send the invalidation result notice to the virtual server which placed new order
 - ※newly add the reason code for the invalidation by mass cancellation order
 - Send the mass cancellation completion notice to the virtual server which placed mass cancellation order
- ✓ Transaction : No other orders or executions are interrupted during the mass cancellation process as it is processed in a single transaction.

- A questionnaire-based survey of trading participants was conducted between March and April of this year (from 83 companies) regarding the operations, etc. in the event of a wide-area disaster.
- **About 60% of participants responded that they had completed and planned to implement the "establishment of backup data centers" and "development of office environments with back-up functions" in remote areas**, and the status of the development of BCP systems is progressing with each company considering and preparing.
- There are many trading participants who are promoting the development of a remote operation system, such as by stationing personnel at bases other than the main office in normal times and establishing a dual operating system. The challenge is to improve the effectiveness of the system, including through training and other measures.

Status of development of backup systems for "cash equities (trading and clearing) operations" on a trading value basis*



* Trading value is based on May 2023 (excluding transactions using co-location services)

* "Others" includes Chubu region and overseas, etc.

Reference



- March 31, 2023, based on the Discussion Paper (released on January 30) by the "Council of Experts Concerning the Follow-up of Market Restructuring", TSE notified and requested (1) take actions to realize management conscious of cost of capital and stock price, (2) promote and disclose dialogue with shareholders, and (3) provide points and examples of "explaining" which contribute to constructive dialogue to the listed companies.
- At the same time, TSE announced the contents of the dialogue and expect institutional investors, who are responsible for dialogue with listed companies, to engage in constructive dialogue with each other.

In January 2023, Tokyo Stock Exchange, Inc. (TSE) identified and published actions that it would be encouraging listed companies to take in response to the discussions of the "Council of Experts Concerning the Follow-up of Market Restructuring." TSE has now compiled specific details on the following three of those actions, and notified them to listed companies on March 31:

- Implementing management that is conscious of cost of capital and stock price (Prime and Standard listed companies)
- Improvements in dialogue with shareholders and disclosure regarding this (Prime listed companies)
- Appropriate use of the "explain" of "comply or explain" to contribute to constructive dialogue (TSE has provided key points and examples of this)

These documents summarize matters considered important for achieving sustainable growth and enhancing corporate value over the medium to long term, and while they are not mandatory under TSE rules, we request that listed companies proactively implement them in consideration of the expectations of investors.

In addition, we hope that institutional investors, who carry out the dialogue with listed companies, will engage in constructive dialogue based on the disclosures and actions of listed companies in response to the above requests, with the aim of encouraging their sustainable growth and enhancement of corporate value over the medium to long term.

Key Points of Action to Implement Management that is Conscious of Cost of Capital and Stock Price

- From the viewpoint of implementing management that is conscious of cost of capital and stock price, TSE requests that listed companies conduct a series of actions on an ongoing basis. This starts with gaining a proper understanding of their cost of capital and profitability based on the balance sheet, and continues with analyzing and assessing the current situation around these and the market valuation at board meetings, preparing and disclosing plans for improvement, and then using dialogue with investors to update them on the progress of these efforts. Note: This request targets all listed companies on the Prime and Standard Markets.
- Through conducting these actions, it is expected that, based on the basic management policy established by the Board of Directors, the management team will take the lead in appropriately allocating resources with sufficient consideration of cost of capital and profitability. This could be by pushing forward initiatives such as investment in R&D and human capital that leads to the creation of intellectual property and intangible assets that contribute to sustainable growth, investment in equipment and facilities, and business portfolio restructuring.
- While share buybacks and dividend increases are considered effective means of improving profitability, if shown as such by the company's analysis of whether the balance sheet effectively contributes to value creation, TSE is not necessarily expecting companies to use only these or solve issues with a one-off response. Efforts are expected on a fundamental level to attain profitability in excess of cost of capital on a sustained basis and achieve sustainable growth.

(note)

• Since analysis and discussion of the current situation must be carried out sufficiently before planning and disclosure can begin, TSE is not specifying a timeframe for the start date of disclosure, but requests as prompt a response as possible.

- TSE has been circulating the “Action on Cost of Capital-Conscious Management and Other Requests” published on March 31, in order to carefully communicate the purpose and specifics of the request to listed companies, domestic and foreign investors, and other market participants. This has been done by methods including presentations at seminars for listed companies and domestic and foreign investors, individual meetings with domestic and foreign investors, lectures for media, media interviews, and articles in magazines, etc.
- After the announcement, many investors, including overseas investors, have expressed their expectations for changes in listed companies in response to this request, while requesting continuous follow-up so that initiatives will not end with formal disclosure or a one-time response.

Opinions and questions received so far (“Action on Cost of Capital-Conscious Management and Stock Price”)

- Necessity of follow-up on listed companies’ response
- Stance on share buybacks and dividend increases in response to this request
- Stance on PBR (1x)
- Stance on trends by industry (regarding PBR, ROE, etc.)
- Issues and future initiatives regarding the Growth Market

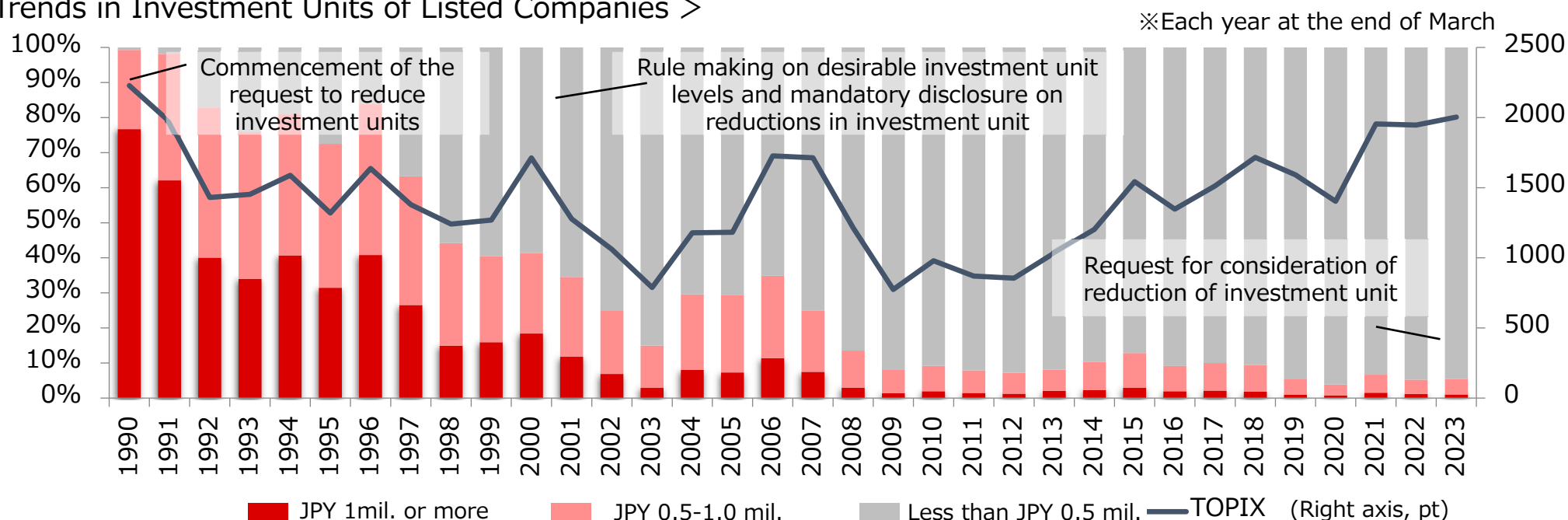
- ⇒ TSE and this follow-up council will continue to monitor the status of listed companies' responses to this request.
- ✓ Firstly, TSE expects to review and discuss these responses in the autumn, taking into account the contents of the corporate governance reports to be submitted after annual general shareholders meetings are held for companies whose fiscal year ends in March.

Note : Listed companies’ responses to the “Better Dialogue with Shareholders and Related Disclosure” and “Using “Explanations” to Contribute to Constructive Dialogue” will also be reviewed.

Reduction of investment unit

- TSE has continued to reduce its investment unit, and in recent years, more than 90% of the companies have invested less than JPY0.5 million even in a rising stock price phase.
- In October 2022, TSE requested representatives of listed companies with high investment units to implement a stock split to reduce their investment units. Approximately 50 companies, including FAST RETAILING CO.,LTD., subsequently decided and announced a stock split.

<Trends in Investment Units of Listed Companies >



<Major companies which resolved the stock split after the request >

Ticker	Company Name	Split ratio	Resolution date of stock split	Effective date of stock split	Investment unit at the time of request
9983	FAST RETAILING CO.,LTD.	1 : 3	2022/12/15	2023/3/1	8,319,000
8035	Tokyo Electron Limited	1 : 3	2023/2/9	2023/4/1	3,918,000
6146	DISCO CORPORATION	1 : 3	2023/2/21	2023/4/1	3,430,000
6954	FANUC CORPORATION	1 : 5	2023/1/27	2023/4/1	2,048,500
4661	ORIENTAL LAND CO.,LTD.	1 : 5	2022/12/27	2023/4/1	1,917,500

- Calculation of JPX Prime 150 Index, a new index focused on value creation, from July 3, 2023.
- From the 500 largest capitalizations of TSE Prime Market-listed companies subject to high governance standards, 150 companies with estimated value creation were selected. To estimate value creation, we utilize 2 indices: equity spreads (ROE- cost of equity capital), which are fundamental valuations such as finance, and PBR, which is a market-based valuation that includes future information and non-financial information.
- Visualize the value-creating companies representing Japan, and aim to penetrate value-creating management and improve the attractiveness of the Japanese stock market by making the index and its constituent stocks eligible for medium-to long-term investment by domestic and overseas institutional investors and individual investors.

Basic concept

Index consisting of representative companies in our country whose value creation is estimated

Procedures for selecting 150 companies

By market capitalization Screening

- Targeting the top 500 companies by market capitalization among all stocks in the TSE Prime Market as of the date for periodic selection
 - ※Excluding stocks that do not meet the continued listing criteria and stocks designated as Securities to Be Delisted

✓ Selection of value-creating companies from the 2 indicators of equity spread and PBR

Criteria(1) Estimated Equity Spread

- Select the companies whose value creation are estimated in terms of financial performance
 - Select the top 75 stocks with estimated equity spreads (= ROE - cost of equity capital)

Criteria(2) PBR

- Select the companies whose value creation are estimated based on market evaluation
 - Except for stocks selected according to criteria (1), among stocks with PBR exceeding 1x, the top 75 stocks by market capitalization are selected.

Introduction of Active ETFs

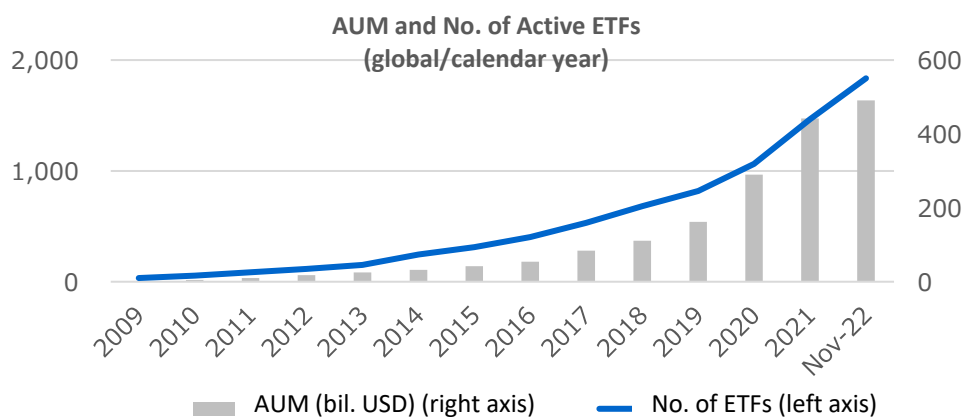
Overview

- Unlike conventional ETFs, they are **not index-linked**.
- Management companies can **flexibly create and manage products** (and as a result can offer investors a wider variety of products).

	Active Funds	TSE Active ETFs	Index-linked ETFs
Listing	Unlisted	Listed	
Trading Price	Base price	Market price (real-time basis)	
Investment Objective	Growth of trust assets		Following index
Flexibility	High		Low
Management Fees	High	Medium	Low
Disclosure of Portfolio	Every fiscal year	Daily*	Daily

*Some ETFs in overseas markets do not disclose portfolios daily ("non-transparent ETFs")

Global Expansion of Active ETFs



New ETFs Needed in TSE Market

- **There is demand** for the below kinds of products among mainly institutional investors, but current regulations make them **difficult to create**.
- Active ETFs can be an answer to these needs.

Fixed income

Multi-Asset

ESG
(stocks/bonds)

Approach to Rule Development

Product features

- Investment in listed stocks, bonds, REITs, listed derivatives, etc.
- Investment in derivatives is limited to hedging purposes, etc.
- **Sufficiently diversified ETFs**

Transparency

- Daily disclosure of Net Asset Value (NAV) and NAV per unit
- **Daily portfolio disclosure**
- Distribution of estimated **indicative NAV (iNAV)** per unit (obligation to make efforts)

Soundness

- Examination on whether asset management is sound through checks on management process, verification system, etc.

Schedule

- **March 2023: Publication of the outline**
- **June 2023: Implementation of the rules**



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