



Action Program for Strengthening the Functions of the Cash Equity Market (Reference Material)

January 30, 2020
Tokyo Stock Exchange, Inc.

Overview of the Action Program

1. Improving the reliability and safety of the market

As the market structure changes due to developments such as the increasing use of automated trading and Low Latency Trading (i.e., high-speed trading), TSE will implement initiatives such as introducing new regulations and conducting more sophisticated trade monitoring and market surveillance.

- (1) Introducing market access rule, etc. <Scheduled to be implemented in early 2021>
- (2) Introducing self-trade prevention function <Scheduled to be implemented in FY2021>
- (3) Implementing sophisticated trade monitoring and market surveillance
- (4) Responding to regulations on dark pools <Scheduled to be implemented in August 2020>

2. Developing an environment that facilitates investment

Alongside increasingly diversified and sophisticated trading needs comes the need for diversified long-term investment and a broadening of the new investor base. As such, TSE will develop an environment that is highly convenient for a broad spectrum of investors by means such as improving its trading rules and providing new methods or channels as well as information.

- (1) Vitalizing the ETF market <Scheduled to be implemented in FY2020>
- (2) Promoting the appeal of investment in individual stocks to retail investors
- (3) Developing new methods or channels for new investors
- (4) Optimization of tick sizes <Scheduled to be implemented in FY2020>
- (5) Enriching information for investors
- (6) Enhancing the convenience of margin transactions
- (7) Addressing various execution needs in the ToSTNeT market <Scheduled to be implemented in August 2020>

3. Considering the trading rules for the future in light of changes in the market environment

In response to the diversified investor needs and trade execution, as well as large changes in the market environment and its structure, TSE will review the trading rules for the future.

- (1) Assessing the trading rules amid the shift toward passive investment
- (2) Study on the next-generation market

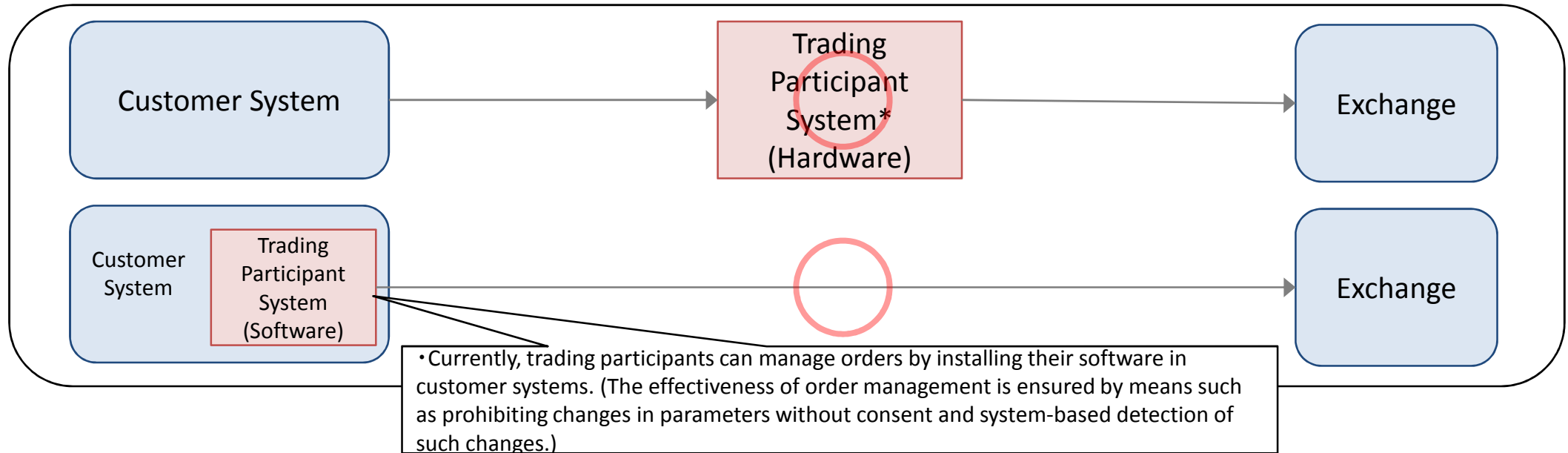
Introduction of Market Access Rule, etc.

- With the increased automation and speed of transactions in recent times, appropriate order management by trading participants has become increasingly important.
- TSE has implemented initiatives toward stable market operations. For instance, in response to the arrowhead system glitch that occurred in October 2018, TSE conducted an overall inspection of the order management systems and data transmission management systems at Low Latency Traders and securities companies that accept orders for Low Latency Trading, and has also gradually introduced storm control functions.
- With the aim of further improving the safety and reliability of the market, TSE will implement revisions focused on requiring trading participants to have direct and exclusive risk management control over customer orders as indicated below.

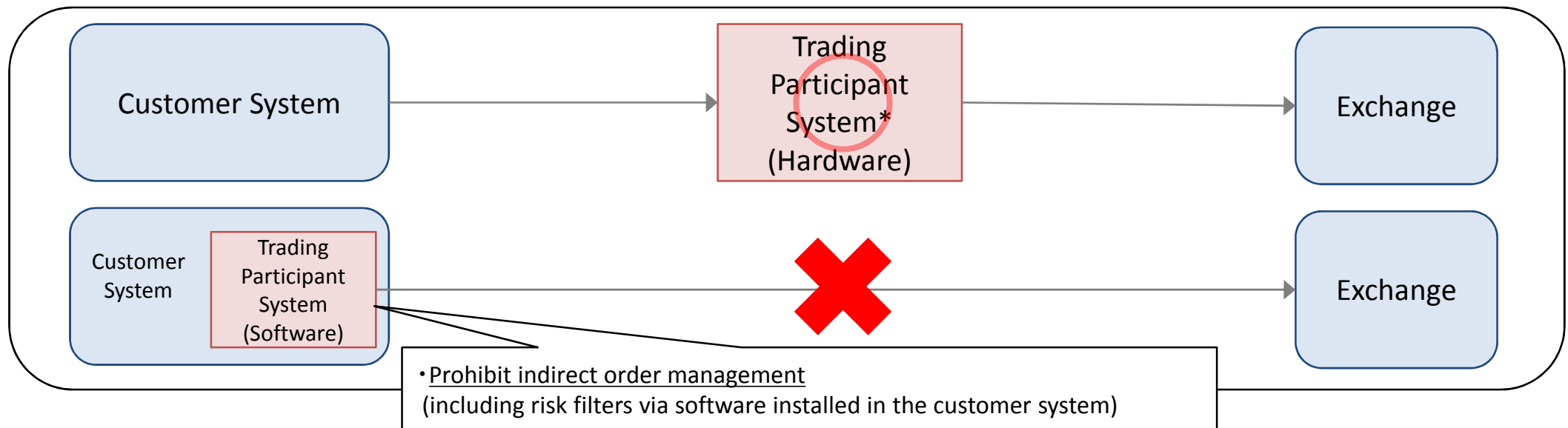
Item	Description	Rule Revisions, etc.
<p>① Requirement for direct and exclusive risk management over customer order restriction and measures (market access rule)</p>	<ul style="list-style-type: none"> • With respect to restrictions and measures pertaining to management of customer orders, trading participants will be required to have direct and exclusive risk management control over customer orders with regard to restriction and measures. 	<ul style="list-style-type: none"> • "Rules Concerning Order Management Systems at Trading Participants" will be partially revised.
<p>② Requirement to introduce functions to prevent order placement</p>	<ul style="list-style-type: none"> • If an irregular order is unexpectedly placed, etc. due to a situation such as an order placement system malfunction, the trading participant must immediately implement measures to prevent the placement of new orders to TSE. 	<ul style="list-style-type: none"> • "Rules Concerning Order Management Systems at Trading Participants" will be partially revised.
<p>③ Prohibition of order management methods that involve deliberate placement of erroneous orders, etc.</p>	<ul style="list-style-type: none"> • It will be clarified that trading participants must appropriately handle, in their systems, orders that breach the order limits, etc. they specified. 	<ul style="list-style-type: none"> • The Order Management Guidelines will clearly prohibit trading participants from adopting order management methods that employ techniques that allow the overwriting of parameters, etc. to place orders that will obviously be returned as errors by the TSE system.

<Ref.> Market Access Rule (Direct and Exclusive Order Management)

<Current>



<After the introduction of the market access rule>



*Risk solutions provided by independent third parties (including the exchange) can be used.

Introduction of Self-trade Prevention Function

- With respect to transactions involving buy and sell orders from the same investor, which may occur in program trading, even though it may not be intentional, such instances could raise suspicions of wash trades, and as such, introduction of self-trade prevention is being led mainly by major exchanges in the US and Europe.
- Accordingly, TSE will offer such self-trade prevention function to the investing public, thereby aiming to improve convenience for investors.
- At the initial introduction stage, TSE intends to introduce STPN (STP Cancel Newest) and STPO (STP Cancel Oldest), both of which are in high demand among investors.

<STP in Major Cash Equity Exchange Markets>

Region	US			Europe	Asia (excluding Japan)			Japan	
Exchanges	NYSE	NYSE Arca	NASDAQ	LSE	SGX	ASX	HKEX	TSE	(Reference) OSE
W/ or W/O STP	○	○	○	○	×	○	×	×	○
Type of STP*	STPN STPO	STPN STPO STPC STPD	STPN STPO STPD	STPN STPO	—	STPO	—	—	STPO
Introduced	2013	2009	2009	N/A	—	2013	—	—	2019

*STPN (STP Cancel Newest) ...At the time of matching orders from the same ID, all Incoming Orders (newly placed orders) will be canceled while Resting Orders (orders already in the order book) will remain on the order book

*STPO (STP Cancel Oldest) ...At the time of matching orders from the same ID, all Resting Orders will be canceled while Incoming Orders will remain on the order book.

*STPC (STP Cancel Both) ...At the time of matching orders from the same ID, all Incoming Orders and Resting Orders will be canceled.

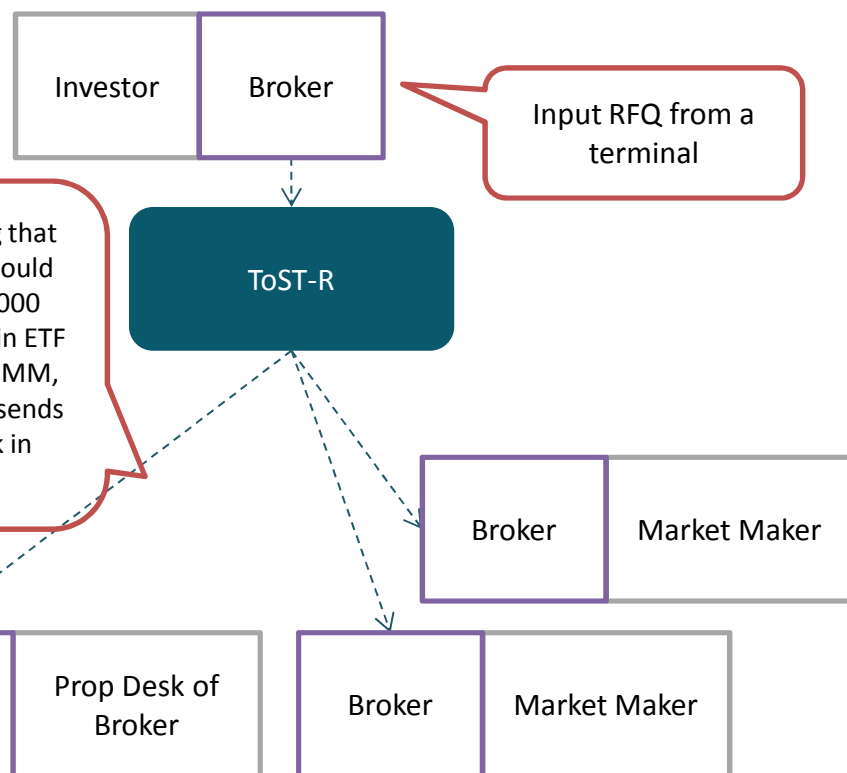
*STPD (STP Decrement and Cancel) ...At the time of matching orders from the same ID, Incoming Orders will be offset by Resting Orders and cancelled, and the remaining quantity will remain on the order book.

Vitalizing the ETF Market (Provision of RFQ Function)

- For some ETFs, it is difficult to execute trades immediately due to reasons such as a lack of adequate available order quantity.
- In response to the needs of institutional investors handling large transactions, TSE is now beginning to consider providing an RFQ (Request for Quote) function for trading ETFs.

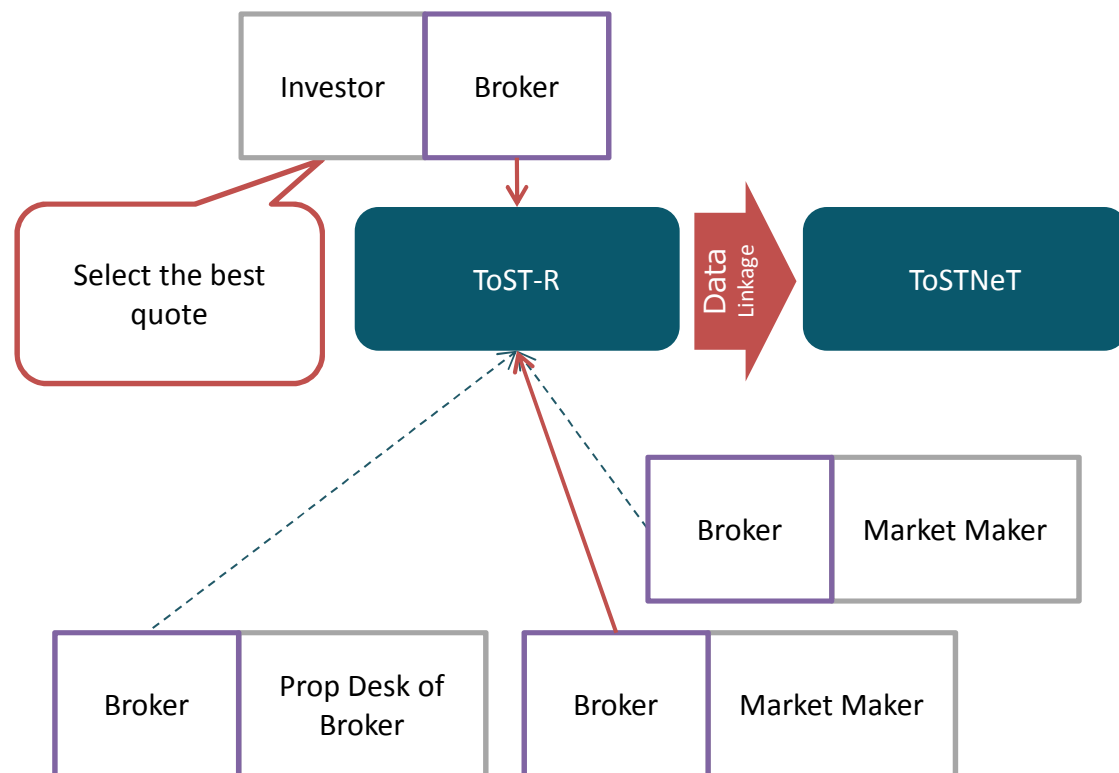
(1) Submit RFQ

- When an investor wants to trade an ETF, a bulk request (RFQ: Request for Quote) is sent to market makers over ToST-R.



(2) Place Orders on ToSTNeT

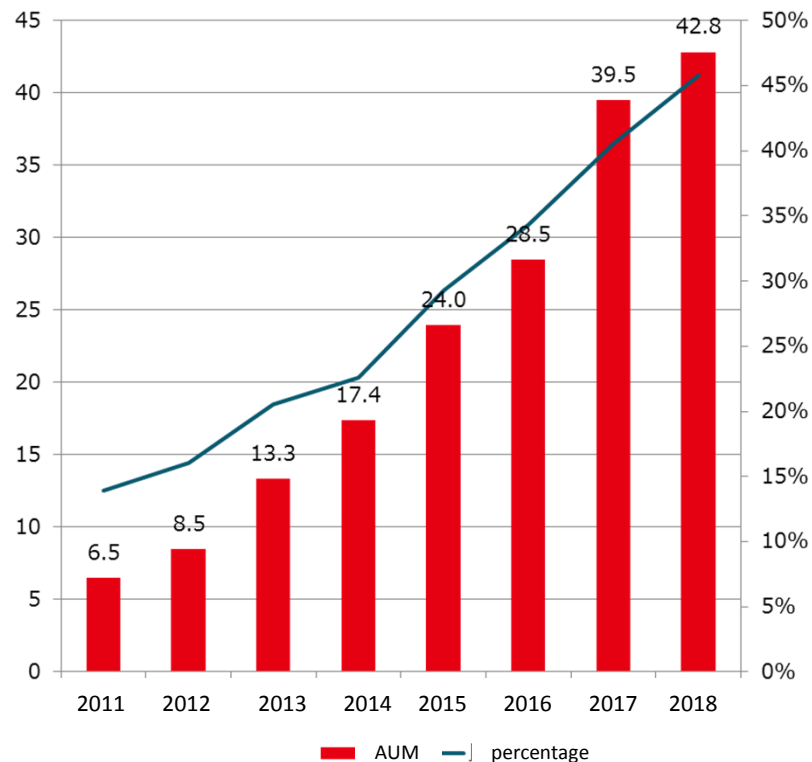
- The investor selects the market maker quote it wants to trade and if both parties agree, the orders are automatically created and placed to ToSTNeT.



Promoting the Appeal of Investment in Individual Stocks to Retail Investors

- Amid the trend toward passive investment, investment in individual stocks based on various investment decisions, especially the participation of retail investors, is becoming more important in terms of unearthing corporate value and contributing to liquidity.
- The launch of “New NISA”, which allows investments in individual stocks, has been scheduled after the expiry of the general NISA scheme, further establishing the environment, including the tax regime, for boosting retail investment in individual stocks.
- Recently, market participants have been calling for more active efforts toward promoting the appeal of investment in individual stocks. Therefore TSE will again work with related parties on initiatives toward promoting the appeal of stock investment.
- FSA publishes a Q&A on insider trading to help prevent the public from not investing in stocks due to unfounded concerns about insider trading regulations. In connection with this, TSE intends to engage in educational and other activities to foster a proper understanding of the regulations.

Percentage of passive funds in stock investment trusts



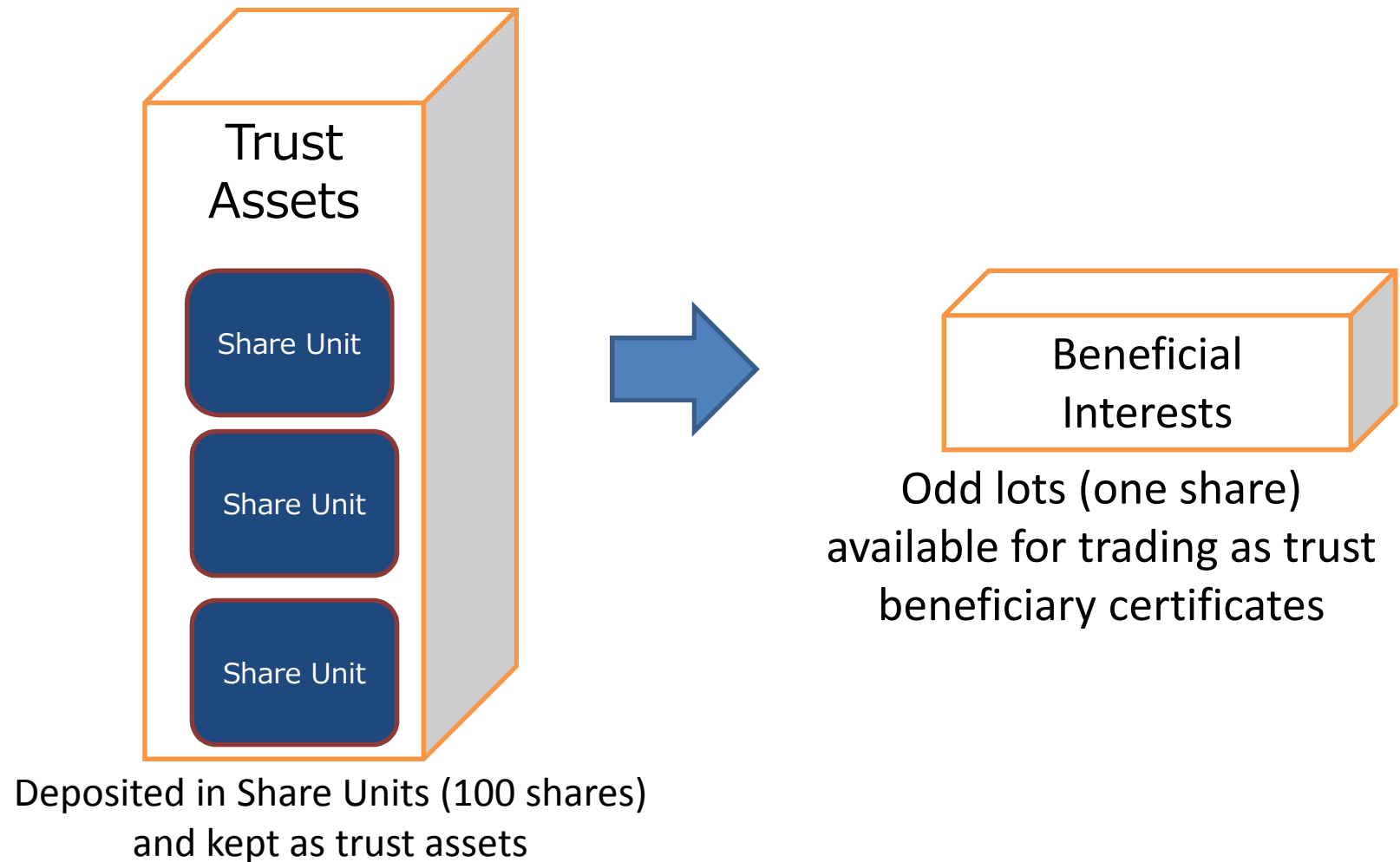
*Prepared by TSE based on statistics of Japan Investment Trusts Association

Main comments from market participants toward conveying the attractiveness of stock investments

- While long-term diversified investment is important, initiatives toward promoting stock investment, not just index funds, are also important.
- Stock investments comes with various attractive aspects, such as capital gain, dividend, shareholder benefits, and shareholders meetings, and is also an important part of asset building.
- While TSE has played a central part in various initiatives to promote the appeal of stock investment, the entire industry should also pull together to do this.
- Leaflets for the purpose of promoting the appeal and significance of stock investments should be provided.
- We hope plant tours, not just IR events, are conducted in cooperation between the exchange and the industry as a means for gaining familiarity with corporations.
- We hope corporate information on individual companies, such as interviews with senior executives and analyst reports, is provided.
- We think it's important to strive for targeting to those who have never invested in stocks by using tools, such as the "what-if" investment returns calculator offered by TSE, and social media.
- For promoting the appeal of investment to the young, it is more important to do it through tie-ups with external entities rather than those within the industry.

Developing New Methods or Channels for New Investors: Small-lot Investments using Assets Held in Trust

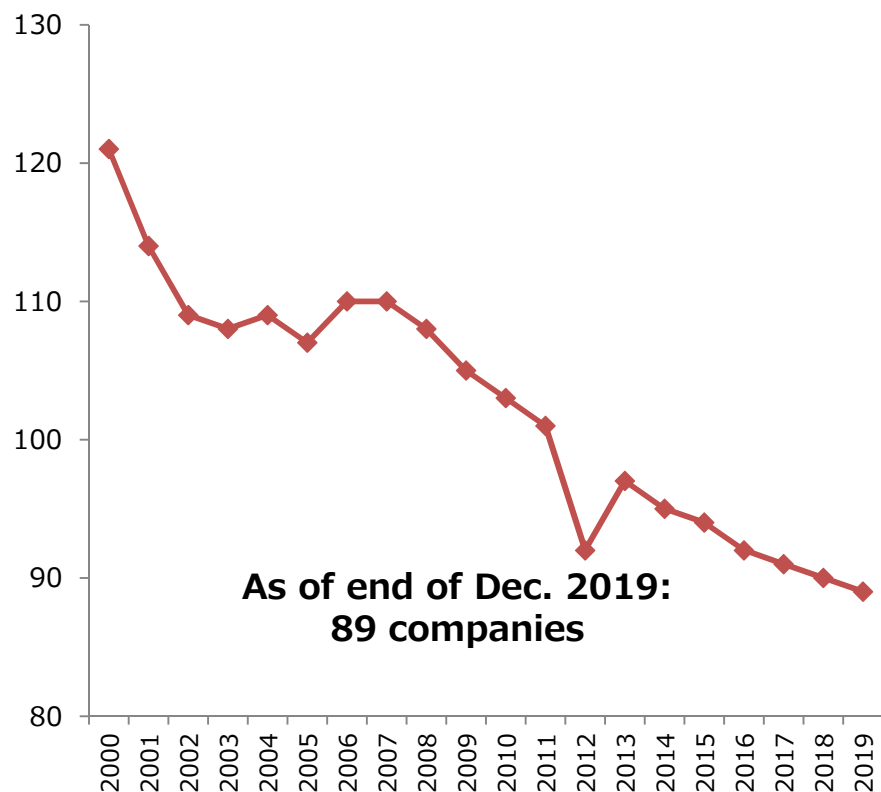
- Listed stocks present a particularly high obstacle to young adults looking to build assets due to reasons including the fact that there are still many stocks with large minimum investment amounts.
- From the viewpoint of broadening the new investor base, TSE will consider listed products/trading rules for trust-based programs that allow small-lot investments.
- * Using assets held in trust helps listed companies avoid an increase in administrative cost from handling odd lots (less than one Share Unit)



Developing New Methods or Channels for New Investors: Diversification of Trading Participants

- In recent years, the number of trading participants has steadily decreased, mainly due to consolidation among medium- and small-sized securities companies that focus on face-to-face sales, and this trend is expected to continue due to factors such as aging of existing customer bases.
- On the other hand, the recent years, securities companies deploying new business models, such as robo-advisors and securities ventures, have emerged, and they are expected to provide new methods or channels mainly for new, young investors. In light of such changes in the business environment, TSE will consider to a review of its trading qualification acquisition criteria (for admission fee and stable profitability).

Changes in No. of General Trading Participants



Outline of Trading Qualification Acquisition Criteria (Current)

Item		Criteria
Financial Position	Capital Stock	JPY 300 million or more
	Amount of Net Assets	JPY 500 million or more, and in excess of the capital amount
	Capital-to-Risk Ratio	More than 200%
	<u>Stable Profitability</u>	<u>Favorable ratio (around 100%) of ordinary income to current expenses</u> or <u>Recorded ordinary profits and net profits for the most recent two business years, and positive earnings for the current business year</u> <u>(Meet either of the above criteria)</u>
Management Structure		Sound management structure (not controlled by parties deemed inappropriate in light of exchange market operations, etc.)
Internal Management System		Appropriate systems for executing business with regard to order acceptance and execution on exchange markets, delivery settlement, loss risk management, as well as compliance with laws and regulations.
<u>Admission Fee</u>		<u>JPY 100 million</u>

Optimization of Tick Sizes

- Since trading costs for medium liquidity stocks and some ETFs are considered high from a global perspective, as a venue that all investors can access and trade, TSE will optimize its tick sizes with a view to developing an environment where retail investors, long-term investors, and other investors can execute trades at better prices.
- * When reviewing the tick sizes, TSE will place emphasis on simplicity for investors and avoid creating excessively small tick sizes.

[Tick weights in Japan, the US, and Europe by liquidity]

	Tick Size Regime	High Liquidity Stocks	Medium Liquidity Stocks	Low Liquidity Stocks
Japan	Liquidity-based tick size table	1-5bps	10-15bps	10-15bps
US	Single table	1.04bps	1.46bps	4.55bps
Europe	Liquidity-based tick size table	1-2bps	2-5bps	5-10bps

* Tick Weight = Tick Size ÷ Stock Price, 1bps = 0.01%

* 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.

* 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).

Enriching Information for Investors

- From the viewpoint of creating new investment opportunities and new businesses for investors, increasing convenience for overseas investors, and facilitating their investment in Japanese stocks, TSE will pursue initiatives to leverage data held by exchanges.
- TSE is conducting PoC testing to verify the feasibility and technical issues related to such data and services.

<Current PoC Testing Projects>

	Item	Detail	Implementation
1	Margin transactions and short selling	<ul style="list-style-type: none"> • Examination on the usability, etc. of data on margin transactions and short selling deemed useful from the viewpoint of trading convenience, risk management, etc. • Data provided (*five years of historical data): <ul style="list-style-type: none"> - Traded volume and value of each issue by new margin transaction, repayment, and non-margin transaction - Sale volume and value of each issue by margin (with or without price restriction) or non-margin transaction 	by March 2020
2	Dissemination of analyst reports on small- and medium-cap stocks	<ul style="list-style-type: none"> • Dissemination of analyst reports in English on small- and medium-cap stocks that use alternative data to overseas investors and brokers • Joint project with Japanese fintech startup Finatext Ltd. 	by February 2020
3	Dissemination of transcripts of listed company IR events, etc.	<ul style="list-style-type: none"> • Dissemination of transcripts of listed company IR events, etc. in Japanese and English • Joint project with SCRIPTS Asia Inc., a company that produces transcripts of events by Asian companies for investors and disseminates them 	by March 2020

Enhancing the Convenience of Margin Transactions

- Margin transaction is carried out mainly by retail investors, providing liquidity and contributing to smooth and fair price formation.
- However, there are discrepancies with the margin transaction rules, etc. for other products such as FX trading.
- TSE will consider improving the margin transaction rules to enhance investor convenience.

Outline of margin transaction rules

System	<ul style="list-style-type: none"> • An investor deposits customer margin with a securities company and borrows funds or securities from the securities company to trade. • Customer margin ratio is 30% or above (minimum amount of JPY 300,000) in laws and regulations.
Trading Activity	<ul style="list-style-type: none"> • Margin transactions account for approx. 15% of the entire market. (*1) • Retail investors account for more than 90% of margin transactions. (*2)
Management	<ul style="list-style-type: none"> • TSE and securities companies, etc. implement various measures to prevent excessive use of margin transactions. • For instance, TSE has guidelines for regulatory measures, etc. to ensure appropriate margin transactions.

Outline of guidelines for regulatory measures, etc.

Purpose	<ul style="list-style-type: none"> • Establish the guidelines, conduct daily publication of outstanding margin transactions, and implement regulatory measures, etc. to prevent and address excessive use of margin transactions and protect investors.
Details	<ul style="list-style-type: none"> • Clarify the numerical criteria such as outstanding margin transactions, trading activity, and stock prices. • If an issue falls under the criteria, the outstanding margin transactions will be subject to daily publication to alert investors and the regulatory measures for raising the customer margin ratio, etc. will be triggered. (Also clarify the numerical criteria for removal of such measures.) <p>→ Based on recent margin transaction activity, TSE will consider how to flexibly and carefully manage margin transactions, such as by implementing and cancelling regulatory measures in a more timely manner.</p>

(*1) Calculated based on trades in April to October 2019. (*2) Source: Trading by Type of Investors

Revisions to ToSTNeT Market Trading Rules (Including Response to Dark Pool Regulations)

- The Working Group on Financial Markets under the Financial System Council in a meeting held in June 2019 expressed the need to understand orders placed via dark pools to exchanges as a measure toward increasing the transparency of dark pool transactions, etc.
- Also, with the recent diversification of trading methods, there are trading needs that cannot be satisfied within the existing rules, such as designating longer settlement cycles at the time of trade execution.
- Given such situations, TSE will review the ToSTNeT market trading rules in order to better understand the actual situation of dark pools and to enhance convenience for trading participants and investors.

Item		Detail
1	Introduction of a flag for dark pools	<ul style="list-style-type: none"> • Trading participants will be required to indicate clearly whether an order was routed from a dark pool when making a bid or offer of single stock trading or basket trading in the ToSTNeT market. • There are plans to report regularly to FSA on trading conditions in dark pools.
2	Flexible settlement dates	<ul style="list-style-type: none"> • There is demand for designating longer settlement cycles for ETF trading related to creation/redemption and for selling issues provided as loaned stocks, etc. • New rules will allow the settlement date for single stock trading and basket trading to be designated between T+3 and T+5, in addition to the current T+2 settlement date (the third business day counting from the trade date).
3	Introduction of VWAP transactions between entrusting investors	<ul style="list-style-type: none"> • With the establishment of VWAP as a benchmark, VWAP-based transactions between customers are increasing. • VWAP transactions involving matching a bid and an offer, both customer-entrusted, for single stock trading will be introduced (limited to cross transactions within the same trading participant). * Currently, the trading participant has to be either of the sell or buy side.

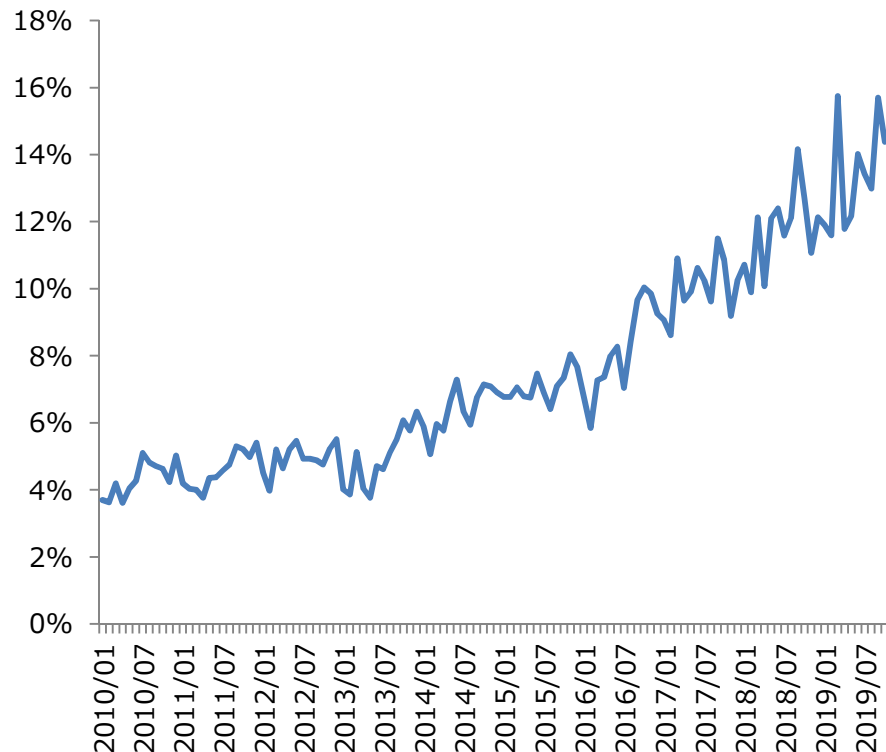
Assessment of Trading Rules amid the Shift toward Passive Investment

(Assessment of Afternoon Closing Auction)

- TSE has doubled the executable price range at the closing auction in the afternoon session since November 5, 2019 to facilitate the formation of closing prices even when there is a concentration of supply and demand.
- This revision encourages the smooth formation of closing prices and reduces the number of stocks not matching in the afternoon closing auction even when there is major index rebalancing.
- In light of the shift toward passive investment, we will assess the effects of the revision and consider feedback from market participants.

* There is also strong demand for mainstream trading rules outside Japan (e.g., introduction of closing session) among overseas long-term investors.

Ratio of trading value of afternoon closing auction (1st Section Market stocks)



Rule revision in November 2019

