

Introduction of ETF Market Making Scheme

December 21, 2017
Tokyo Stock Exchange, Inc.

I. Purpose

As pointed out by the Working Group on Financial Markets under the Financial System Council, among others, given the growing importance of initiatives toward stable asset building for the general public, there is demand for improved liquidity of exchange-traded funds (ETFs) as a financial instrument allowing diversified investment in small amounts of money. In response to such developments, Tokyo Stock Exchange, Inc. (TSE) will introduce an ETF market making scheme to improve liquidity in the ETF market through continuous quoting by market makers and set out necessary matters.

II. Outline

Item	Description	Remarks
I. Outline (1) Target	<ul style="list-style-type: none"> • Target products of this scheme will be investment trust beneficiary certificates, foreign investment trust beneficiary certificates, foreign investment securities, beneficiary certificates of beneficiary certificate-issuing trusts, and beneficiary certificates of foreign beneficiary certificate-issuing trusts (hereinafter collectively referred to as "ETFs"); provided, however, that this scheme will not apply to leveraged and inverse ETFs. • This scheme will apply to trading on the auction market. 	<ul style="list-style-type: none"> • This scheme will not apply to ETNs.
(2) ETF Market Maker	<ul style="list-style-type: none"> • An ETF Market Maker (hereinafter "Market Maker") is an entity designated by TSE to conduct market making in the ETF market. • Trading participants (including remote trading participants) providing quotes for their proprietary account and Persons Conducting Low Latency Trading (hereinafter collectively referred to as "Trading Participants, etc.") will be eligible to be designated as Market Makers. • A Market Maker should make efforts to ensure fair price formation and smooth 	<ul style="list-style-type: none"> • A Person Conducting Low Latency Trading means a Low Latency Trader stipulated in Article 66-50 of the Financial Instruments and Exchange Act. • A Low Latency Trader will provide quotes

Disclaimer: This English translation is for reference purposes only and not a legally definitive translation of the original Japanese text. In the event a difference arises regarding the meaning herein, the original Japanese version will prevail as the official authoritative version.

(Reference Translation)

Item	Description	Remarks
(3) Market Making	<p>trading in the ETF market of TSE.</p> <ul style="list-style-type: none">• Market Making means continuous provision of bid and ask quotes by a Market Maker, as specified by TSE.• A Market Maker is required to fulfil the obligation to provide quotes as specified by TSE (hereinafter the "Quote Obligation"). TSE will pay prescribed compensation (hereinafter "Incentives") to Market Makers fulfilling the Quote Obligation.	<p>through a trading participant (including remote trading participants).</p> <ul style="list-style-type: none">• The Quote Obligation and fulfillment status thereof will be set and calculated on a monthly basis.
2. Designation of Market Maker, etc. (1) Application and Designation of Market Maker	<ul style="list-style-type: none">• TSE will receive an application for designation as Market Maker (hereinafter "Application") for each ETF from Trading Participants, etc. that wish to be designated as Market Maker, and designate Market Maker(s) for each such ETF.• Trading Participants, etc. that wish to be designated as Market Maker will make an Application by filling out a prescribed application form; provided, however, that Persons Conducting Low Latency Trading should submit an application form to TSE through a trading participant.<ul style="list-style-type: none">– TSE will designate a trading participant providing quotes for its proprietary account as Market Maker (hereinafter "Proprietary MM"), based on the Application from said trading participant, specifying ETF(s) for market making, virtual server(s) to be used, and other matters.– TSE will designate a Low Latency Trader as Market Maker (hereinafter "Customer MM"), based on the Application from said Low Latency Trader through a trading participant, specifying ETF(s) for market making, virtual server(s) to be used, the trading participant that owns such virtual server(s) to be used by the Market Maker, the registration number as Low Latency	<ul style="list-style-type: none">• Applicants should notify TSE of ETF(s) for which they conduct market making, the Virtual Terminal Number(s) through which quotes are placed, and other matters via an application form.• A Market Maker may notify multiple virtual terminal numbers of a single trading participant for a single ETF for which the Application is made.• A Customer MM may notify virtual terminal numbers of different trading participants for different ETFs for which the Application is made; provided, however,

Disclaimer: This English translation is for reference purposes only and not a legally definitive translation of the original Japanese text. In the event a difference arises regarding the meaning herein, the original Japanese version will prevail as the official authoritative version.

(Reference Translation)

Item	Description	Remarks
(2) Suspension or Cancellation of Market Maker Status	Trader, and other matters. • If a Market Maker does not fulfil the Quote Obligation, TSE can suspend or cancel its Market Maker status.	that a Customer MM cannot use virtual terminal numbers of different trading participants for a single ETF for which the Application is made.
3. Quote Obligation (1) Outline of Quote Obligation a. Number of ETFs for Continuous Quoting b. Quoting time period	• TSE will stipulate the following matters as the Quote Obligation for Market Makers. Market Makers are required to fulfil the Quote Obligation for ETF(s) for which the Application is made. – a. Number of ETFs for continuous quoting – b. Quoting time period – c. Maximum Spread and Minimum Quantity • Market Makers must provide quotes for either (a), (b) or (c) below: – (a) At least 30 ETFs, of which 20 or more are illiquid; – (b) At least 15 foreign index ETFs; or – (c) At least 10 illiquid domestic ETFs <u>plus</u> at least 10 foreign index ETFs. • Market Makers must provide quotes for no less than 80% of the time period	• ETFs whose average daily trading value is less than JPY 100 mil. will be deemed illiquid. • An ETF that was deemed illiquid at the time of the Application made by a Market Maker will be treated as illiquid in terms of the Quote Obligation, even if such ETF becomes liquid after the Application is made.

Disclaimer: This English translation is for reference purposes only and not a legally definitive translation of the original Japanese text. In the event a difference arises regarding the meaning herein, the original Japanese version will prevail as the official authoritative version.

(Reference Translation)

Item	Description	Remarks																				
<p>c. Maximum Spread and Minimum Quantity</p> <p>(2) Measurement of Quoting Time Period</p>	<p>during continuous auction sessions for each month; provided, however, that the Quote Obligation will be exempted during the time period when quote provision is deemed difficult, such as trading halts or Special Quote periods.</p> <ul style="list-style-type: none"> Market Makers must provide quotes for each type of ETFs as specified in A through D below: <table border="1"> <thead> <tr> <th>Type</th> <th>Issues</th> <th>Maximum Bid-Ask Spread (whichever is larger)</th> <th>Minimum Quantity (one leg)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>ETFs tracking Nikkei 225, TOPIX or JPX-Nikkei 400</td> <td>20 bps or 2 ticks</td> <td>JPY 30 mil.</td> </tr> <tr> <td>B</td> <td>ETFs tracking domestic stocks or REITs</td> <td>50 bps or 3 ticks</td> <td>JPY 10 mil.</td> </tr> <tr> <td>C</td> <td>Foreign index ETFs</td> <td>50 bps or 3 ticks</td> <td>JPY 5 mil.</td> </tr> <tr> <td>D</td> <td>Selected foreign index ETFs</td> <td>80 bps or 4 ticks</td> <td>JPY 5 mil.</td> </tr> </tbody> </table> <ul style="list-style-type: none"> TSE will measure the time period during which a Market Maker provides quotes for each month. Based on the result of such measurement, TSE will judge whether the Market Maker has fulfilled the Quote Obligation and calculate Incentives to be paid to the Market Maker. 	Type	Issues	Maximum Bid-Ask Spread (whichever is larger)	Minimum Quantity (one leg)	A	ETFs tracking Nikkei 225, TOPIX or JPX-Nikkei 400	20 bps or 2 ticks	JPY 30 mil.	B	ETFs tracking domestic stocks or REITs	50 bps or 3 ticks	JPY 10 mil.	C	Foreign index ETFs	50 bps or 3 ticks	JPY 5 mil.	D	Selected foreign index ETFs	80 bps or 4 ticks	JPY 5 mil.	<ul style="list-style-type: none"> Foreign index ETFs will be categorized into Type C, in principle; however, some foreign index ETFs may be categorized into Type D, based on liquidity, etc. Spread will be the price difference between the best bid and the best ask, and specified in bps or ticks (minimum price increments), whichever is larger. Measurement of the quoting time period will be conducted every business day; provided, however, that the Quote Obligation may be exempted, based on the notification from a Market Maker, under unavoidable circumstances, such as
Type	Issues	Maximum Bid-Ask Spread (whichever is larger)	Minimum Quantity (one leg)																			
A	ETFs tracking Nikkei 225, TOPIX or JPX-Nikkei 400	20 bps or 2 ticks	JPY 30 mil.																			
B	ETFs tracking domestic stocks or REITs	50 bps or 3 ticks	JPY 10 mil.																			
C	Foreign index ETFs	50 bps or 3 ticks	JPY 5 mil.																			
D	Selected foreign index ETFs	80 bps or 4 ticks	JPY 5 mil.																			

Disclaimer: This English translation is for reference purposes only and not a legally definitive translation of the original Japanese text. In the event a difference arises regarding the meaning herein, the original Japanese version will prevail as the official authoritative version.

(Reference Translation)

Item	Description	Remarks										
		non-trading of the underlying market.										
<p>4. Incentives</p> <p>(1) Outline of Incentives</p> <p>a. Incentive Proportional to Trading Value</p>	<ul style="list-style-type: none"> • TSE will pay the following Incentives to Market Makers who have fulfilled the Quote Obligation: <ul style="list-style-type: none"> - a. Incentive proportional to trading value - b. Refund of access fees - c. Refund of trading system facility usage fees • TSE will set an incentive proportional to trading value executed by Market Makers on the auction market. • The sum total of incentives will be calculated by multiplying the trading value of a Market Maker by an incentive per unit. • An incentive per unit will be specified by TSE based on the tier, which is specified in accordance with each ETF's daily trading value on the auction market, and the type of ETFs (ETFs for diversified investment and other ETFs), as shown in the table below; provided, however, that TSE will separately specify incentives for batch auction trading and executions against another Market Maker's quotes. • TSE will regularly review and publish the parameters applied for each ETF. <table border="1"> <thead> <tr> <th rowspan="2">Tier</th> <th rowspan="2">Daily Average Trading Value on the Auction Market (JPY)</th> <th colspan="2">Incentive per Unit</th> </tr> <tr> <th>ETFs for Diversified Investment</th> <th>Other ETFs</th> </tr> </thead> <tbody> <tr> <td>I</td> <td>Less than 100 mil. (or newly listed)</td> <td>0.9 bps</td> <td>0.7 bps</td> </tr> </tbody> </table>	Tier	Daily Average Trading Value on the Auction Market (JPY)	Incentive per Unit		ETFs for Diversified Investment	Other ETFs	I	Less than 100 mil. (or newly listed)	0.9 bps	0.7 bps	<ul style="list-style-type: none"> • ETFs for diversified investment will be designated separately by TSE. • Incentives for batch auction trading or executions against another market maker's quotes will be as follows, regardless of the type of ETFs: <ul style="list-style-type: none"> Tier I : 0.2 bps Tier II : 0.2 bps Tier III : 0.2 bps Tier IV : 0.1 bps Tier V : None
Tier	Daily Average Trading Value on the Auction Market (JPY)			Incentive per Unit								
		ETFs for Diversified Investment	Other ETFs									
I	Less than 100 mil. (or newly listed)	0.9 bps	0.7 bps									

Disclaimer: This English translation is for reference purposes only and not a legally definitive translation of the original Japanese text. In the event a difference arises regarding the meaning herein, the original Japanese version will prevail as the official authoritative version.

(Reference Translation)

Item	Description				Remarks
	II	100 mil. or more, but less than 500 mil.	0.5 bps	0.3 bps	
	III	500 mil. or more, but less than 1 bil.	0.2 bps	0.2 bps	
	IV	1 bil. or more, but less than 5 bil.	0.1 bps	0.1 bps	
	V	5 bil. or more	None	None	
	b. Refund of Access Fees	<ul style="list-style-type: none"> TSE will set an incentive proportional to number of orders for refund of access fees. In the case where a Market Maker fulfils the Quote Obligation for an ETF, the incentive will be JPY 0.1 per order for such ETF on the auction market; provided, however, that the upper limit of the number of orders for which the incentive is paid will be 100,000 orders per day for each ETF. 			
c. Refund of Trading System Facility Usage Fees (through Provision of Free Virtual Servers)	<ul style="list-style-type: none"> TSE will set an incentive to refund trading system facility usage fees for refund of virtual server usage fees. TSE will provide free virtual servers in accordance with the number of ETFs for which a Market Maker fulfils the Quote Obligations, and pay the incentive equivalent to the trading system facility usage fees (the virtual server usage fees). 				
	Number of ETFs for which an MM fulfills the Quote Obligation		Number of Free Virtual Servers (with 200 msg/sec)		
	40 ETFs or more		2		

Disclaimer: This English translation is for reference purposes only and not a legally definitive translation of the original Japanese text. In the event a difference arises regarding the meaning herein, the original Japanese version will prevail as the official authoritative version.

(Reference Translation)

Item	Description		Remarks
(2) Payment of the Incentives	60 ETFs or more	4	
	80 ETFs or more	6	
	100 ETFs or more	10	
	Every 20 ETFs over 100	2	
	<ul style="list-style-type: none"> TSE will pay the incentives to trading participants, regardless of whether for proprietary MMs or Customer MMs. 		
5. Report to Market Makers	<ul style="list-style-type: none"> TSE will send a monthly report containing the designation status of each Market Maker, fulfillment status of Quote Obligations, incentives, and other matters to each Market Maker and a trading participant that owns the virtual server(s) used by Customer MM(s). 		
6. Other (1) Acclimation Period	<ul style="list-style-type: none"> TSE will set an acclimation period for a certain period after the Application is made by a Market Maker and apply laxer requirements for the Quote Obligation and an additional incentive. The acclimation period will be for six months after a Market Maker is newly designated; provided, however, that for Market Makers who make the Application during 2018, the acclimation period will be until the end of June 2019. 		<ul style="list-style-type: none"> Laxer requirements: The requirement for the number of ETFs for continuous quoting will be relaxed as follows: <ul style="list-style-type: none"> (a) At least 20 ETFs, of which 10 or more are illiquid; (b) At least 10 foreign index ETFs; or (c) At least 5 illiquid domestic ETFs plus at least 5 foreign index ETFs. Additional incentive: TSE will provide two additional free virtual servers as refund of trading system facility

Disclaimer: This English translation is for reference purposes only and not a legally definitive translation of the original Japanese text. In the event a difference arises regarding the meaning herein, the original Japanese version will prevail as the official authoritative version.

(Reference Translation)

Item	Description	Remarks
		usage fees.

III. Implementation Date (Tentative)

The above scheme is scheduled to be implemented in mid- 2018. The implementation date will be determined based on the progress of responses to the introduction of the registration regime for Low Latency Traders at TSE, trading participants, and relevant organizations.

Disclaimer: This English translation is for reference purposes only and not a legally definitive translation of the original Japanese text. In the event a difference arises regarding the meaning herein, the original Japanese version will prevail as the official authoritative version.