

(Reference Translation)

Proposed Revision to "Contingency Plan with Regard to Trading in the Derivatives Market"

March 5, 2021
Osaka Exchange, Inc.
Tokyo Commodity Exchange, Inc.

I. Purpose

In light of equity trading system failures that occurred in October 2020, Tokyo Stock Exchange, Inc. (hereinafter "TSE") has established "Council for Recurrence Prevention Measures" (hereinafter "Council"), in which discussion has been developed with its members and TSE on how TSE should develop its responses to system failures and its rules and regulations.

In response to proposal from TSE which is based on consideration in Council, Osaka Exchange, Inc. and Tokyo Commodity Exchange, Inc. have compiled the proposed revision to the "Contingency Plan with Regard to Trading in the Derivatives Market" for the purpose of clarifying the standards, etc. for trading halts and trading resumptons.

II. Outline

Please refer to the proposed revision to the "Contingency Plan with Regard to Trading in the Derivatives Market" as attached.

III. Implementation Date

The attached revisions are scheduled to be implemented in April 2021.

Contingency Plan with Regard to Trading in the Derivatives Market

Established on October 18, 2013

Revised on March 24, 2014

Revised on July 3, 2017

Revised on July 27, 2020

Revised on MM DD, 2021

Osaka Exchange, Inc.

Tokyo Commodity Exchange, Inc.

Osaka Exchange, Inc. (OSE) and Tokyo Commodity Exchange, Inc. (TOCOM) (hereinafter collectively and individually the "Exchange") hereby set forth the following contingency plan with regard to trading in the derivatives market, in case the Exchange is unable to continue or considers it inappropriate to continue trading in derivatives in its market due to failures in the Exchange's trading systems and other related systems. The plan shall be applied when the Exchange is unable to continue or considers it inappropriate to continue the trading of derivatives in its market in instances of not only system failures but also other events such as earthquakes, wind/flood damage, terrorist acts, and stoppage of social infrastructure including power/telecommunications networks.

○ Basic Policy

As the Exchange has a key role as financial/social infrastructure, the potential impact at home and abroad of a trading halt in the Exchange market is significant. The Exchange will take measures with respect to trading in its market, comprehensively considering the state of the disaster, system failure, or other incident while paying due attention to such aspects as the balance between securing trading opportunities and forming prices, as ensuring fairness and reliability in price formation in the market is an important function that the Exchange should provide.

○ Concrete Plans (Changes are indicated in red.)

Possible Situations	Measures to be taken by the Exchange	Rationale/ <u>Remarks</u>
I. In the event of a failure in the Exchange trading systems	1. Matching Systems: ▪ The Exchange will halt trading of issues for which continued trading is difficult. 2. Order Placement Systems:	

- If any trading participant is unable to participate in trading, the Exchange will consider whether to halt trading, comprehensively taking into account factors such as the past market share of trading value per product group (aggregated by categories: 1.Indicesⁱ, 2.Government Bond, 3.Commodity (OSE) and 4.Commodity (TOCOM) for futures and options (hereinafter the same).) based on trading volume of affected trading participants (terminals, etc.) (generally above 50%), the details of the system failure, the number of trading participants that are unable to participate in trading and their attributes, and the nature of each product.
- When considering whether to resume trading, the Exchange will also take into account above factors. With regard to decisions on resuming trading, the Exchange will make sufficient considerations to ensure fair price formation after trading resumes, and will secure order acceptance time and trading hoursⁱⁱ of at least 15 minutes respectively after trading resumes.
- J-NET transactionsⁱⁱⁱ will continue as long as any trading participant is able to place orders.
- It is operationally difficult to re-entrust orders, etc. to other trading participants, etc., taking into account system and practical business issues (handling of existing open interests, opening accounts, etc.), and system failures involving trading participants whose market share is a certain level or above are likely to have a material impact on market liquidity.
- Considering that the composition of trading participants varies among product group.
- In a case where futures trading is halted, option trading in the same product group will, in principle, be halted, as there is a risk that appropriate pricing in option trading will not be conducted in such situation.
- In a case where it is deemed inappropriate to make a decision based on the share of trading value and the number of trading participants, the Exchange will respond flexibly, taking into account the impact of the system failure. (For example, in the case where a system failure has occurred and its impact cannot be foreseen, since trading needs to be halted immediately, the Exchange will consider whether to halt trading regardless of the numerical criteria.)
- In a case where it is deemed to be difficult to resume trading during the day session, trading resumption during the night session shall be considered.

ⁱ Including securities options (hereinafter the same).

ⁱⁱ Trading hours in the regular session (ZARABA) (hereinafter the same).

ⁱⁱⁱ For TOCOM, this refers to off-auction trading, EFP transactions, EFS transactions, and EFF transactions (hereinafter the same).

(Reference Translation)

II. In the event of a failure in the Exchange Market Information system	<ul style="list-style-type: none">▪ If a failure is likely to distort price formation in the market, such as an overall system failure or where normal quote information is not distributed, the Exchange will halt trading.	<ul style="list-style-type: none">▪ If investment continues without sufficient dissemination of market information, price formation in the market is likely to be distorted.
III. In the event of a system failure at the clearing organization or settlement organization(s)	<ul style="list-style-type: none">▪ In the event of a system failure at the clearing organization (Japan Securities Clearing Corporation, Inc. (JSCC)) or the settlement organization(s) (the Bank of Japan, fund-settlement banks, etc.), the handling of the settlement date, etc. shall be governed by the provisions of JSCC.▪ If it will take several days for the recovery of the systems at the clearing organization or the settlement organization(s), the Exchange may temporarily halt trading entirely.	<ul style="list-style-type: none">▪ In order to prevent settlement risk from increasing due to accumulation of unsettled transactions.
IV. In the event of a likelihood of exceeding the processing capacity of the Exchange's trading systems or the clearing organization's systems	<ul style="list-style-type: none">▪ If there is a likelihood of exceeding system capacity, the Exchange shall judge whether it is necessary to suspend trading, in view of trading conditions, etc.	<ul style="list-style-type: none">▪ If trading is likely to be suspended, the Exchange shall announce so in advance.
V. In the event of a system failure on the side of trading participants	<ul style="list-style-type: none">▪ If any trading participant is unable to participate in trading, the Exchange will consider whether to halt trading, <u>comprehensively taking into account factors such as the past market share of trading value per product group based on trading volume of affected trading participants (terminals, etc.) (generally above 50%), the details of the system failure, the number of trading participants, etc. that are unable to participate in trading and their attributes, and the nature of each product.</u>	<ul style="list-style-type: none">▪ <u>It is operationally difficult to re-entrust orders, etc. to other trading participants, etc. taking into account system and practical business issues (handling of existing positions, opening accounts, etc.) and system failures involving trading participants whose market share is a certain level or above are likely to have a material impact on market liquidity.</u>▪ <u>Considering that the composition of trading participants varies among product group.</u>▪ <u>In a case where futures trading is halted, option trading in</u>

	<ul style="list-style-type: none"> ▪ <u>When considering whether to resume trading, the Exchange will also take into account above factors. With regard to decisions on resuming trading, the Exchange will make sufficient considerations to ensure fair price formation after trading resumes, and will secure order acceptance time and trading hours of at least 15 minutes respectively after trading resumes.</u> ▪ J-NET trading will continue as long as any trading participant is able to place orders. 	<p><u>the same product group will, in principle, be halted, as there is a risk that appropriate pricing in option trading will not be conducted in such situation.</u></p> <ul style="list-style-type: none"> ▪ <u>In a case where it is deemed inappropriate to make a decision based on the share of trading value and the number of trading participants, the Exchange will respond flexibly, taking into account the impact of the system failure. (For example, in the case where a system failure has occurred and its impact cannot be foreseen, since trading needs to be halted immediately, the Exchange will consider whether to halt trading regardless of the numerical criteria.)</u> ▪ <u>In a case where it is deemed to be difficult to resume trading during the day session, trading resumption during the night session shall be considered.</u>
<p>VI. In the event of an earthquake, wind/flood damage, terrorist act, failure in social infrastructure</p>	<ul style="list-style-type: none"> ▪ When the Exchange concludes that it is difficult to continue operations and is unable to monitor trading in derivatives sufficiently in the event that employees of the Exchange are forced to evacuate the building due to disaster, terrorist act, etc., the Exchange will halt trading. 	

<p>including power/telecommunications networks, etc.</p>	<ul style="list-style-type: none">▪ If any trading participant is unable to participate in trading, the Exchange will consider whether to halt trading, comprehensively taking into account factors such as the past market share <u>trading value</u> per product <u>group</u> based on trading volume of affected trading participants (terminals, etc.) (generally above 50%), the state of the disaster, the details of the system failure, the number of trading participants, etc. that are unable to participate in trading and their attributes, the nature of each product, and the state of the entire financial market.▪ <u>When considering whether to resume trading, the Exchange will also take into account above factors. With regard to decisions on resuming trading, the Exchange will make sufficient considerations to ensure fair price formation after trading resumes, and will secure order acceptance time and trading hours of at least 15 minutes respectively after trading resumes.</u>▪ J-NET trading will continue as long as any trading participant is able to place orders.▪ In the event of a system failure at the clearing organization (JSCC) or the settlement organization(s) (the Bank of Japan, fund-settlement banks, etc.), the handling of the settlement date, etc. shall be governed by the provisions of JSCC.▪ If it will take several days for the recovery of the systems at the clearing organization or the settlement organization(s), the Exchange may temporarily halt trading entirely.	<ul style="list-style-type: none">▪ <u>The Exchange will coordinate with the relevant authorities and related organizations in order to understand the societal demand for trading and the damage situations before deciding on trading halts and resumption.</u>▪ <u>In a case where the co-location area cannot be used, the Exchange will also take into account the trading value from use of the co-location service when making a decision.</u>▪ <u>In a case where it is deemed to be difficult to resume trading during the day session, trading resumption during the night session shall be considered.</u>▪ In order to prevent settlement risk from increasing due to the accumulation of unsettled transactions.
<p>VII. When trading is expected to be halted over an extended</p>	<ul style="list-style-type: none">▪ The Exchange will consider whether to resume trading after comprehensively taking into consideration the state of recovery from the disaster and/or system failure (the state of recovery of the	<ul style="list-style-type: none">▪ The Exchange will decide after taking into account such aspects as the state of trading participants' responses while paying due attention to securing trading

(Reference Translation)

period of time	affected system, the situation at trading participants, etc. that are unable to participate in trading, the nature of each product, the state of the entire financial market, etc.).	opportunities.
VIII. When stock indices are miscalculated	<ul style="list-style-type: none">▪ In the event that an index that is the underlying of futures and/or options trading is miscalculated and the Exchange deems that it may have a material impact on investment decisions, the Exchange will halt trading in futures and/or options pertaining to the index, and resume trading after disseminating information regarding the miscalculation.	<ul style="list-style-type: none">▪ Since miscalculation of the underlying index is highly likely to disrupt price formation of futures/options, the Exchange will halt trading to disseminate the relevant information.

○ System for notices and communications with trading participants

All of the following communication methods that are used in ordinary times and are available at the time will be used:

the Internet (JPX website), Target, etc.

When checking the share of trading value in relation to consideration on trading halt/resumption, the Exchange will contact the responsible persons ,who have been notified to the Exchange based on our rules, at each trading participant to check whether they are able to participate in trading. Such checks will, as a general rule, be conducted via Target.