Council for Recurrence Prevention Measures Summary of the 1st Meeting

1. Date and time: October 23, 2020 15:30 - 16:50

2. Venue: Meeting Room at Tokyo Stock Exchange

3. Agenda

- (1) Details of the incident on October 1
- (2) Outline of recurrence prevention measures
- (3) Major topics for consideration going forward

4. Summary of discussion

- 1. General discussion
- For incidents like these, the response on the day should be decided and information provided at a much earlier stage.
- Since system failure is an unavoidable part of having systems, the important thing is how fast you can identify the cause of a failure and recover from it afterwards.
- Obviously it is important to identify the fundamental reason for the settings mistake
 that happened this time, but before developing new rules, there should be
 investigations into whether there are similar settings issues or dependencies within
 other systems, not just the related system.
- While building a robust system is of course a major prerequisite, it is important to
 develop standards and procedures for recovery as well as order handling rules for
 system failures. In addition, the most important thing is to make sure that all
 standards and procedures are made known to and understood by the overall market
 including investors.
- In the event of a similar incident, judgements on the application of securities transaction errors/incidents, etc. should be made in line with the relevant laws. In some cases, it will be necessary to consider action in relation to the law itself.

2. Comments on specific issues

(On rules for trading halts and resumptions)

- Rules need to be arranged so that brokerage orders resent at the time of trading resumption are not picked up as unauthorized trades or securities transaction errors/incidents.
- When considering trading resumption rules, different types of cases should be

- thought about separately, for example different stages of order or time frames.
- It is important to have rules and procedures and carry out drills for a variety of failure scenarios.
- This situation would surely not have been the same if order acceptance had been cancelled before 8 am.
- At present, most securities companies cannot cancel orders on their own and have to
 wait for a revocation notice from TSE. Although overseas it is apparently common to
 reboot to clear all data and reset all of the serial numbers ("reboot and reset"), most
 securities companies here are not prepared for this, and it could mean considerable
 costs for some of them.
- To ensure a speedy trading resumption, it is necessary to have comprehensive procedures prepared in advance, and tests and drills should be conducted based on this.
- Given that we are competing with overseas markets, rather than just thinking about cost, "reboot and reset" should be considered from the perspective of providing risk capital to the stock market in Japan over the long term. Trading should be resumed if there are enough participants that can participate.
- We request that you consider the rules and costs needed for "reboot and reset" from the perspective of investors, including international competition.

(On information provision)

- It would be very helpful if information on the failure was provided on the website.

 Call center operators would be able to provide a standard response to customers by referring to the website.
- On the day of the system failure we were unable to download PDF files from Target because it was overloaded by access volumes. We request that you consider increasing server capacity and/or utilizing social networks, etc.
- On the day, no information was available on the cause nor an expected recovery time. No improvement seems to have been made since the failure in 2018.
 Information should be provided with a mind to global standards and so that a diverse range of stakeholders would consider it transparent. This Council should discuss the ideal features of this kind of information provision.
- Information provided should also be easy to understand for retail investors. It would be good if information was available via easy to access channels such as Twitter.
- To promote investment from overseas investors, information should be provided in English almost simultaneously to that in Japanese.
- Since the TSE website holds a large variety of content, it is difficult to know where to find information on a failure. We request that you make information easier to find in the event of failure, such as by making it clearly visible on the top page.

• When notifications from TSE arrive, some recipients may take some time to share them with other related people within the company, so we request that you discuss responses with the proviso that some information sharing within market participants may be insufficient.

(On IT systems)

- It is necessary to examine thoroughly the areas that can be addressed by securities companies and those that can be addressed by the exchange. It is also necessary to coordinate the system specifications of each securities company.
- The trade monitoring server should be an independent and separate system, and should not depend on the same NAS as the market data dissemination gateway. The dependency of the internal systems should be verified. Also, since the switchover failed and it took time to identify the issue, we suggest that you look into implementing monitoring tools.

(The TSE Equity Department is responsible for the wording of the meeting summary.

This English translation is for reference purposes only.)