

Basic Policy concerning Handling upon Occurrence of Systems Failure

Japan Securities Clearing Corporation

This policy describes JSCC's basic principle to continue its business operations in the event of a system failure in JSCC's core systems (Listed Products Clearing System, OTC Derivatives Clearing System and JGB OTC Transaction Clearing System) or any other external institution's system in relation to clearing and settlement, or in case of an emergency situation of electricity, telecommunications or other social infrastructures, or occurrence of national disasters or terrorist attacks, etc. In order to prevent Clearing Participant' default and systemic risks, this policy has been developed so that JSCC would be able to continue its clearing and settlement operations to the maximum extent possible in case of a system failure, etc., and is based on the principle of minimizing the impact of the extent of response and protecting confusions in overall settlement systems when temporary response will be undertaken.

In the event of a system failure, etc., communications among JSCC, Designated Market Operators, DTCC/TIW, MarkitWire, Markit, Reuters, Electric Trading platform (ETP), etc., BOJ, Fund Settlement Banks, Foreign Currency Settlement Banks, JASDEC*¹ and other related external institutions (Securities Companies, Financial Services Agency, etc.), will be carried out via terminals of JSCC's core systems, simultaneous facsimile or e-mail, internet (JSCC's Web site), or JSCC site at Target, etc. as may be available.

Note that detailed emergency plans assuming practical situations shall be prescribed separately when JSCC deems it necessary (*).

*¹ "JASDEC" represents Japan Securities Depository Center, Inc.

(*) JSCC has established the following emergency plans respectively; i) “Contingency Plan for Last Trading Day of Futures & Options Trading” and “Contingency Plan for Special Quotations and Final Settlement Prices for Futures and Options Contracts” for handling of last trading days, special quotations and final settlement prices for futures and options, ii) “Contingency Plan for Margin Calculation for Futures and Option Contracts” for handling of the margin calculation, etc. iii) “Business Contingency Plan Pertaining to Calculation of IRS Margin Requirement, etc.” for handling of IM calculation for IRS transactions, and v) “Handling concerning Transaction Agency for Futures and Option Trading upon Failure of Trading System” handling concerning resale, buy-back, etc. upon transaction agency of futures and option trading at the time of systems failure, etc., in accordance with a system failure.

1 . Response in the event of a system failure in JSCC's systems or in any other related Institution

Assumed situation	Measures	Remarks	Pertinent Regulations
i. Failure occurs within JSCC's Listed Products Clearing System or ETF Creation/Redemption Platform	<p>(1) Failure occurs within Listed Products Clearing System</p> <ul style="list-style-type: none"> Even in cases where JSCC's Listed Products Clearing System is unable to transmit transfer (settlement) instructions to JASDC/BOJ/Fund Settlement Banks or to distribute necessary settlement information to its Clearing Participants, the settlement shall be, to the extent possible, continued by an alternate method of transmission, as usual. When transfer (settlement) instructions are transmitted by the alternate method, etc., if JSCC deems it unavoidable according to system status, Settlement Cutoff Times shall be changed. If JSCC deems it impossible to transmit transfer (settlement) instructions or to distribute necessary 		Article 4, 80, 81 and 82 of Business Rules, Article 4, 84, 85 and 86 of Business Rules on Business of Assuming Commodity Transaction Debts

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Assumed situation	Measures	Remarks	Pertinent Regulations
	<p>settlement information to its Clearing Participants neither by the alternate method nor by changes of the cutoff times, etc., the settlement shall be deferred.</p> <ul style="list-style-type: none"> Basically, assumption of obligation shall be continued without suspension. However, when several days are necessary for system recovery, JSCC may suspend assumption of obligation taking into account risks arising from aggregation of unsettled contracts. JSCC will make other responses as necessary, according to system status. <p>(2) Failure occurs within ETF Creation/Redemption Platform</p> <ul style="list-style-type: none"> Due to a failure occurred in JSCC's ETF Creation/Redemption Platform (hereinafter referred to as "Platform"), if Clearing Participants cannot submit an application for clearing via Platform or JSCC cannot confirm details of such applications, JSCC will accept applications for clearing and confirm details by an alternate method. 	<ul style="list-style-type: none"> Deposit to /Withdrawal from Clearing Deposit may be unable or open hours of deposit window may be changed temporarily. 	Article 45-3, and 46 of Business Rules

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Assumed situation	Measures	Remarks	Pertinent Regulations
ii .Failure occurs in JSCC's OTC Derivatives Clearing System or communication networks	<ul style="list-style-type: none"> • Even in cases where a failure occurs in JSCC's OTC Derivatives Clearing System or networks and it is impossible to receive original transactions data subject to clearing via DTCC/TIW, MarkitWire or ETP, etc., to generate the fund settlement data, or to distribute necessary settlement information to Clearing Participants, clearing process shall be, to the extent possible, continued as usual by an alternate method or early repair of failure parts, etc. • When clearing process cannot be continued even by the alternate method, etc., if JSCC deems it unavoidable according to system status, Settlement Cutoff Times shall be changed. • If JSCC deems it impossible to continue clearing process neither by the alternate method nor changes of Settlement Cutoff Times, etc., the settlement shall be deferred. • JSCC will make other responses as necessary, according to system status. 	<ul style="list-style-type: none"> • Deferment of settlement shall be, to the extent possible, implemented within a clearing cycle. (Hereinafter, the same applies to the case of "deferment of settlement.") • In cases where JSCC cannot handle the situation by a deferment of settlement within the clearing cycle, clearing process shall not be carried out in such cycle. (The same as the above.) 	Article 5, 113, 114 and 115 of CDS Clearing Business Rules, Article 5, 113, 114 and 115 of Interest Rate Swap Clearing Business Rules

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Assumed situation	Measures	Remarks	Pertinent Regulations
iii. Failure occurs in JGB OTC Transaction Clearing System.	<ul style="list-style-type: none"> Even in cases where it is impossible to transmit settlement instructions to BOJ or to distribute necessary settlement information to Clearing Participants via JGB OTC Transactions Clearing System, the settlement shall be, to the extent content, continued as usual by an alternate method. When settlement instructions are transmitted by the alternate method, etc., if JSCC deems it unavoidable according to system status, Settlement Cutoff Times shall be changed. If JSCC deems it impossible to transmit settlement instructions or to distribute necessary settlement information to Clearing Participants neither by the alternate method nor by changes of Settlement Cutoff Times, etc., the settlement shall be deferred. When applications of clearing cannot be received via JGB OTC Transactions Clearing System, if JSCC deems it unavoidable, Clearing Procedure Handling Hours shall be changed. However, when several days are necessary for system recovery, JSCC may suspend assumption of obligation taking into account risks arising from aggregation of unsettled contracts. JSCC will make other responses as necessary, according to system status. 	<ul style="list-style-type: none"> It is assumed that settlement instructions will be transmitted using terminals of BOJ-NET. Deposit to /Withdrawal from Clearing Deposit may be unable in some cases. 	Article 5, 91, 92 and 93 of JGB OTC Transaction Clearing Business Rules

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Assumed situation	Measures	Remarks	Pertinent Regulations
iv .Failure occurs in JASDEC systems.	<ul style="list-style-type: none"> Settlement shall be, to the extent possible, continued as usual. In cases where JSCC deems it unavoidable according to system status, Settlement Cutoff Times and Clearing Procedure Handling Hours relating to JGB OTC transactions shall be changed. If JSCC deems it impossible to carry out the settlement even by the alternate method or changes of Settlement Cutoff Times, etc., the settlement shall be deferred. Basically, assumption of obligation shall be continued without suspension. However, when several days are necessary for system recovery, JSCC may suspend assumption of obligation taking into account risks arising from aggregation of unsettled contracts. JSCC will make other responses as necessary, according to system status. 	<ul style="list-style-type: none"> In some cases, the settlement method may be changed, such as from DVP Settlement to Non-DVP Settlement, etc. According to system status, deposit to/withdrawal from Clearing Deposit with securities eligible for JASDEC may be unable in some cases. 	<p>Article 4, 80, 81 and 82 of Business Rules,</p> <p>Article 4, 84, 85 and 86 of Business Rules on Business of Assuming Commodity Transaction Debts,</p> <p>Article 5, 91, 92 and 93 of JGB OTC Transaction Clearing Business Rules</p>

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Assumed situation	Measures	Remarks	Pertinent Regulations
v .Failure occurs in BOJ-NET.	<p>【Fund Settlement-related】</p> <ul style="list-style-type: none"> • Fund settlement shall be, to the extent possible, continued as usual by the alternate method specified by BOJ. • In cases where fund settlement is continued by the alternate method, if JSCC deems it unavoidable according to system status, Settlement Cutoff Times shall be changed. • If JSCC deems it impossible to carry out the settlement even by the alternate method or changes of Settlement Cutoff Times, etc., the settlement shall be deferred. • Basically, assumption of obligation shall be continued without suspension. However, when several days are necessary for system recovery, JSCC may suspend assumption of obligation taking into account risks arising from aggregation of unsettled contracts. • JSCC will make other responses as necessary, according to system status. 		<p>Article 4, 80, 81 and 82 of Business Rules, Article 4, 84, 85 and 86 of Business Rules on Business of Assuming Commodity Transaction Debts, Article 5, 113, 114 and 115 of CDS Clearing Business Rules,</p>

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Assumed situation	Measures	Remarks	Pertinent Regulations
	<p>【JGB Settlement-related】</p> <ul style="list-style-type: none"> • JGB settlement shall be, to the extent possible, continued as usual by an alternate method. • According to system status, if JSCC deems it impossible to carry out settlement even by changes of Settlement Cutoff Times, Settlement Cutoff Times shall be changed. • According to system status, if JSCC deems it impossible to carry out settlement even by changes of Settlement Cutoff Times, etc., the settlement shall be deferred. • Basically, assumption of obligation shall be continued without suspension. However, if several days are necessary for system recovery, JSCC may suspend assumption of obligation taking into account risks arising from aggregation of unsettled contracts. • JSCC will make other responses as necessary, according to system status. 	<ul style="list-style-type: none"> • With regard to JGB DVP Settlement, any alternate methods such as request by document, etc. shall not be acceptable. • Deposit to/Withdrawal from Clearing Deposit with JGB may be unable in some cases. 	Article 5, 113, 114 and 115 of Interest Rate Swap Clearing Business Rules, Article 5, 91, 92 and 93 of JGB OTC Transaction Clearing Business Rules
vi . System failure occurs in a Fund Settlement Bank and Foreign Currency	<ul style="list-style-type: none"> • Fund settlement shall be, to the extent possible, continued by the alternate method specified by JSCC. • If JSCC deems it impossible to carry out fund settlement even by the alternate method, Settlement Cutoff Times shall be changed. 		Article 4, 80, 81 and 82 of Business Rules,

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Assumed situation	Measures	Remarks	Pertinent Regulations
Settlement Bank	<ul style="list-style-type: none"> • If JSCC deems it impossible to carry out fund settlement neither by the alternate method nor by changes of Settlement Cutoff Times, etc., the settlement shall be deferred. • Basically, assumption of obligation shall be continued without suspension. However, if several days are necessary for system recovery, JSCC may suspend assumption of obligation taking into account risks arising from aggregation of unsettled contracts. • JSCC will make other responses as necessary, according to system status. 	<ul style="list-style-type: none"> • Deposit to/Withdrawal from Clearing Deposit with cash may be unable in some cases. 	<p>Article 4, 84, 85 and 86 of Business Rules on Business of Assuming Commodity Transaction Debts,</p> <p>Article 5, 91,92 and 93 of JGB OTC Transaction Clearing Business Rules,</p> <p>Article 5, 113, 114 and 115 of Interest Rate SWAP Clearing Business Rules</p>

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Assumed situation	Measures	Remarks	Pertinent Regulations
vii. Failure occurs in Designated Market Operator's systems	<ul style="list-style-type: none"> Even in cases where systemic exchange of the transaction data is interrupted between JSCC and a designated market operator after completion of transactions, the settlement shall be, to the extent possible, continued as usual by an alternate method. When information cannot be transmitted even by the alternate method, if JSCC deems it impossible to carry out the settlement, the settlement shall be deferred. 	<ul style="list-style-type: none"> With regard to transactions traded in the market operated by a Designated Market Operator where no system failure occurs, the settlement shall be implemented as usual. If transactions are not executed due to a system failure in a Designated Market Operator's systems, no assumption of obligation occurs. 	Article 81 of Business Rules
vii. Failure occurs in Securities Company's systems	<ul style="list-style-type: none"> Even in cases where systemic exchange of the data relating to lending/borrowing transactions is interrupted between JSCC and a securities company, the settlement shall be, to the extent possible, continued as usual. If systemic exchange of the data relating to lending/borrowing transactions is not available between JSCC and a securities company even by the alternate method (conditions where JSCC cannot conduct assumption of obligation), the settlement shall be implemented without considering lending/borrowing transactions. 		—

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2. Responses in the event of emergency such as massive blackout, terrorist attacks, earthquake, etc.

Assumed situation	Responses	Remarks	Pertinent
i. Emergency of social infrastructures, such as electricity or telecommunication, etc. occurs	<ul style="list-style-type: none"> The settlement shall be, to the extent possible, continued as usual. In cases of any system failures in JSCC's core systems, JASDEC, BOJ, Fund Settlement Bank, Foreign Currency Settlement Bank, or Designated Market Operator, etc., the measures described in "1. i-viii" above shall be undertaken according to system status. 		<p>Article 4, 80, 81 and 82 of Business Rules,</p> <p>Article 4, 84, 85 and 86 of Business Rules on Business of Assuming Commodity Transaction Debts,</p> <p>Article 5, 113, 114 and 115 of CDS Clearing Business Rules,</p> <p>Article 5, 113, 114 and 115 of Interest Rate Swap clearing Business Rules,</p> <p>Article 5, 91, 92 and 93 of JGB OTC Transactions Clearing Business</p>

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Assumed situation	Responses	Remarks	Pertinent
			Rules
ii. Emergency situation such as terrorist attacks, etc. occurs	<ul style="list-style-type: none"> 2. The measures similar to “i” above shall be implemented. 		Article 4, 80, 81 and 82 of Business Rules, Article 4, 84, 85 and 86 of Business Rules on Business of Assuming Commodity Transaction Debts, Article 5, 113, 114 and 115 of CDS Clearing Business Rules, Article 5, 113, 114 and 115 of Interest Rate Swap Clearing Business Rules, Article 5, 91, 92 and 93 of JGB OTC

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Assumed situation	Responses	Remarks	Pertinent
			Transactions Clearing Business Rules
iii. a natural disaster, such as earthquake, etc. occurs	<ul style="list-style-type: none"> 2. The response similar to “i” above shall be implemented. 		Article 4, 80, 81 and 82 of Business Rules, Article 5, 113, 114 and 115 of CDS Clearing Business Rules, Article 5, 113, 114 and 115 of Interest Rate SWAP Clearing Business Rules, Article 5, 91, 92 and 93 of JGB OTC Transaction Clearing Business Rules

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