

Revision of Risk Management System in JGB OTC Transaction Clearing Business

March 20, 2014

Japan Securities Clearing Corporation

I. Purpose

Under JSCC's current clearing system for JGB OTC transactions, the risk management system is structured in such manner that if loss arises as a result of a Clearing Participant's default, such loss shall be compensated with initial margin, etc. deposited by the defaulting Clearing Participants, in the first place, and, if there is any shortage, Clearing Participants other than the defaulting Clearing Participant are to compensate losses, such as parties to the original transactions being requested to compensate such losses after the fact.

With respect to such risk management system, JSCC will conduct necessary system revision, such as the revision of calculation method, etc. for initial margin, the introduction of a clearing fund system as a contributory financial resource to cover losses from defaults of Clearing Participants in extreme but plausible market conditions, and the revision of specific methods of compensation for losses by Clearing Participants other than defaulting Clearing Participants, to have such system compliant with the international regulations, such as the CPSS-IOSCO Principles for Financial Market Infrastructures, etc. and thereby enhance JSCC's international competitiveness.

II. Overview

Item	Description	Remarks
1. Revision of Calculation Method, etc. for Initial Margin		
(1) Revision of	• In order ensure higher reliance level in respect of initial margin for covering loss	

Item	Description	Remarks
<p>Calculation Method, etc. of Market Value Fluctuation Risk Factor</p> <p>a. Calculation parameters for Market Value Fluctuation Risk Factor</p> <p>b. Rules for Revision of Established Value of Market Value Fluctuation Risk Factor</p>	<p>arising from default of Clearing Participants, the calculation parameters for, and the rules for the revision of the established value of, a risk factor by each issue in relation to Japanese government bonds restructuring cost used for calculation of initial margin (hereinafter referred to as “Market Value Fluctuation Risk Factor”) will be revised in the following manner:</p> <p>•Market Value Fluctuation Risk Factor shall be calculated in accordance with the following parameters:</p> <p>(i) Confidence interval: 2.33σ (One-sided confidence level: 99%)</p> <p>(ii) Observation period: 250 business days</p> <p>(iii) Holding period: 3 business days</p> <p>•Market Value Fluctuation Risk Factor shall be reviewed on a weekly basis, and the value calculated for the business day just before the last business day of a given week shall be used as the established value for the following week.</p> <p>•Specifically, based on the calculated value for the business day just one day before the last business day of a given week, review is implemented, and its result shall be notified to Clearing Participants on the last business day. The said value shall be used as the new established value commencing on the first business day of the following week (to be deposited on the second business day).</p> <p>•In case the established value for Market Value Fluctuation Risk Factor is to be</p>	<p>•Current parameters are as follows:</p> <p>(i) Confidence interval: 2σ (One-sided confidence level: 97.7%)</p> <p>(ii) Observation period: 120 business days</p> <p>(iii) Holding period: 1 business day</p> <p>•As for the 3-day holding period, Moving-Window method will be used for the calculation.</p> <p>•Currently, the factor is reviewed on a monthly basis using the calculated value as of respective month-end.</p> <p>•Even when there is no change for the established value of the risk factor, notification needs to be forwarded.</p>

Item	Description	Remarks
(2) Introduction of Market Impact Charge	<p>lowered, 1.5x the calculated value or the maximum during the past two years is used as its floor. However, this stipulation shall be abolished.</p> <ul style="list-style-type: none"> • We will calculate the equivalent of transaction execution cost which is needed when position should be restructured due to default of Clearing Participant (hereinafter “Equivalent of Transaction Execution Cost”), and add the Equivalent of Transaction Execution Cost as the deemed Market Impact Charge to the Required Initial Margin Base Amount as one of its components. • In accordance with the below process, we will calculate the Equivalent of Transaction Execution Cost, and will deem it as the Required Market Impact Charge. (See Annex 1) <ul style="list-style-type: none"> (i) Determination of criterial spread <p>Based on the data for bid-asked spread, discrepancy from the appraised market value (criterial spread) shall be determined, referencing the position scale of each issue.</p> 	<ul style="list-style-type: none"> • The Equivalent of Transaction Execution Cost, which is needed when position is restructured, means the cost expected to arise due to the bid-asked spread (discrepancy between selling price and buying price) during the process when we will try to restruct the same position as before in the market. • Unit for criterial spread is bp. However, unit of criterial spread of Japanese government bonds with floating rate is yen (amount of discrepancy). • Data for the actual bid-asked spread will be obtained by collecting filled-out market survey from Clearing Participants who are Financial Instruments Business Operators, from among “JGB Market Special Participants (<i>primary dealers</i>)” designated by the Ministry of Finance Japan. • As for the criterial spread level, quarterly review will be

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	<p>(ii) Calculation of the Equivalent of Transaction Execution Cost for each issue Modulus of the quantity of offsetting position for each issue shall be multiplied by BPV (basis point value) as well as by criterial spread (only criterial spread is used in case of Japanese government bonds with floating rate), to calculate the Equivalent of Transaction Execution Cost for each issue.</p> <p>(iii) Calculation of the Required Market Impact Charge for each Clearing Participant The Equivalent of Transaction Execution Cost for each issue shall be added together for all issues concerning a specific Clearing Participant, to calculate the Required Market Impact Charge for the said Clearing Participant.</p>	<p>implemented.</p> <ul style="list-style-type: none"> • As appraised market values, we will use what we will compile based on the reference statistical prices for over-the-counter transactions published by Japan Securities Dealers Association. • The quantity of offsetting position for each issue represents the remaining balance of the quantity after netting the obligation of respective Clearing Participant to deliver JGB to JSCC and the obligation of JSCC to deliver JGB to the Clearing Participant (both quantity basis) for each issue on all settlement dates. • BPV is an index to show the variation in value when interest rate moves by 1bp. • In case of a Clearing Participant who keeps 2 or more netting accounts, the Required Market Impact Charge will be calculated for each of the netting accounts. • When a trust bank designates Initial Margin Groups, the Required Market Impact Charge will be calculated for each of the Initial Margin Groups.

Item	Description	Remarks
(3) Additional initial margin in line with the credit standing of Clearing Participant	<ul style="list-style-type: none"> • If and when we deem it necessary in view of the credit standing of a Clearing Participant, we may ask the participant to deposit certain additional initial margin to better reflect their credit situation. • We will abolish the current stipulation to call for additional initial margin based on the capital-to-risk ratio and the solvency margin ratio whether non-consolidated or consolidated. (See Annex 3) • We will revise the multiplier to be applied to the Required Initial Margin Base Amount when net worth or the like becomes too small relative to the Required Initial Margin Base Amount. (See Annex 3) 	<ul style="list-style-type: none"> • For specific mark-up level of initial margin in view of the credit standing of Clearing Participants, refer to Annex 2.
(4) Handling of additional deposit of initial margin at the time of market price fluctuation	<ul style="list-style-type: none"> • We will revise the trigger level for calling additional deposit of initial margin, additional deposit amount calculation base and date of application of adhoc change of Market Value Fluctuation Risk Factor and the like at the time of market price fluctuation. (See Annex 4) 	
2. Introduction of Clearing Fund system		
(1) Objective of Clearing Fund	<ul style="list-style-type: none"> • With regard to JSCC's clearing services for JGB OTC transactions, Clearing Participants are required to deposit JGB OTC transaction clearing fund (hereinafter "Clearing Fund"), in order to secure risks that are not covered by 	

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(2) Required Amount of Clearing Fund	<p>initial margin (hereinafter referred to as “IM”) deposited by Clearing Participants.</p> <ul style="list-style-type: none"> • The required amount of Clearing Fund shall be an amount sufficient to cover losses that would be arising from a shortage of IM from defaulting Clearing Participants in the event of defaults of multiple Clearing Participants in extreme but plausible market conditions (under stressed conditions). • The required amount of Clearing Fund for each Clearing Participant shall be the sum of the largest and the second largest Risk Amounts Exceeding Collateral (defined below) of Clearing Participants (if one Corporate Group has multiple Clearing Participants, the sum of Risk Amounts Exceeding Collateral of all Clearing Participants in the same Corporate Group) prorated according to the Required Initial Margin Base Amount of the Clearing Participant, provided that if the amount so obtained is less than the minimum requirement, then the required amount of Clearing Fund shall equal to the minimum requirement. “Risk Amount Exceeding Collateral” means the expected loss upon default of a Clearing Participant under stressed conditions exceeding the Required Initial Margin Amount. (See Annex 5) 	<ul style="list-style-type: none"> • JSCC shall perform calculations and give notices regarding the required amount of Clearing Fund. • The minimum required amount shall be 100 million yen. • The amount of losses arising at the time of defaults of Clearing Participants under stressed conditions shall be the largest amount of losses assumed in 12 stress scenarios (see Annex 6), which are generated as combinations of principal components of historical yield curve variations extracted from historical yield curve variation data by using principal component analysis method, and the most volatile fluctuations observed in the market in the past. • For a Clearing Participant holding multiple netting accounts, Risk Amount Exceeding Collateral shall be calculated based on the net position of such multiple accounts. • If the Clearing Participant is a trust bank, Risk Amount Exceeding Collateral for trust account and for house account shall be calculated separately. • If a trust bank designates IM groups, Risk Amount Exceeding

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(3) Deposit of Clearing Fund	<ul style="list-style-type: none"> • The required amount of Clearing Fund shall be calculated on a weekly basis on the business day immediately preceding the last business day of the week. • If any insufficiency has occurred for the deposited amount of Clearing Fund, the additional deposit shall be made by 11:00 a.m. on the business day immediately following the date of occurrence of insufficiency (date of calculation). • As for Clearing Fund, the deposit of substituting Japanese government bonds (hereinafter referred to as "JGB") in lieu of cash may be accepted. 	<p>Collateral shall be calculated for each of such group and the sum of Risk Amount Exceeding Collateral of all IM groups of the trust bank shall apply as Risk Amount Exceeding Collateral for the trust account of such trust bank.</p> <ul style="list-style-type: none"> • Even if a trust bank is included in a corporate group, Risk Amount Exceeding Collateral of a trust account of the trust bank shall not be combined with Risk Amount Exceeding Collateral of other Clearing Participants included in the said corporate group. • Substituting JGB shall be subject to haircuts determined in light of price fluctuations.
3. Revision of Loss Compensation Scheme		

Item	Description	Remarks
<p>(1) Classification of Loss Compensation by Non-defaulting Clearing Participants</p>	<ul style="list-style-type: none"> • Method of covering losses from a default of a Clearing Participant by non-defaulting Clearing Participants shall be classified as follows: <ul style="list-style-type: none"> i. The trust accounts of trust banks: The method to compensate losses caused by defaults in line with their proportion of transactions with defaulting Clearing Participants (hereinafter “Proportion of Original Transactions”) (such method is hereinafter referred to as the “Original Transactions Prorating Method”). ii. Clearing Participants other than trust banks and the house accounts of trust banks: The method to compensate losses caused by defaults in line with the proportion of the required amount of Clearing Fund for each Clearing Participant to the aggregate amount of the required amounts of Clearing Funds (hereinafter referred to as the “Proportion of Clearing Fund”) (such method is hereinafter referred to as the “Clearing Fund Requirement Prorating Method”). • Loss compensation shall be conducted with the Original Transactions Prorating Method and the Clearing Fund Requirement Prorating Method, as described below: <ul style="list-style-type: none"> i. Allocation of losses by each method <ul style="list-style-type: none"> - Original Transactions Prorating Method: Allocated according to the 	<ul style="list-style-type: none"> • The methods of covering losses applicable to Clearing Participants shall be fixed and may not be changed. • Since a trust account transaction is executed by a trust bank based on an instruction from a settlor who manages counterparty risks, the method of trust property covering losses arising from such transaction (the Original Transactions Prorating Method) shall apply. • The Proportion of Original Transactions shall be determined based on the total amount (gross) of obligations JSCC has assumed. • For examples of loss compensation methods, see Annex 7.

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(2) Financial Resources for Loss Compensation	<p>Proportion of Original Transactions subject to Original Transaction Prorating Method to overall transactions;</p> <ul style="list-style-type: none"> - Clearing Fund Requirement Prorating Method: Allocated according to the proportion remaining after subtracting the Proportion of Original Transactions subject to the Original Transactions Prorating Method. <p>ii. Allocation of losses to each Clearing Participant in each method</p> <ul style="list-style-type: none"> -The amount of losses to be covered by Clearing Participants subject to the Original Transactions Prorating Method (hereinafter “Clearing Participants subject to Proration on Original Transactions”) shall be an amount obtained by prorating the amount allocated to this classification, as prescribed in i., by the Proportion of Original Transactions for each of the said Clearing Participants. - The amount of losses to be covered by Clearing Participants subject to the Clearing Fund Requirement Prorating Method (hereinafter “Clearing Participants subject to Proration on Clearing Fund Requirement”) shall be an amount obtained by prorating the amount allocated to this classification, as prescribed in, by the proportion of the required amount of Clearing Fund for each of the said Clearing Participants. <ul style="list-style-type: none"> • In order to avoid the systemic risk caused by a default of JSCC, any loss to JSCC caused by the default of a Clearing Participant should be compensated according to the following order. <p>(First tier): Margin, Clearing Fund, etc. deposited by defaulting Clearing Participants</p>	<ul style="list-style-type: none"> • For loss compensation by method of proration, see Annex 8. • In third tier, Clearing Participants subject to Proration on

Item	Description	Remarks
	<p>(Second tier): Compensation by JSCC</p> <p>(Third tier): Clearing Fund deposited by non-defaulting Clearing Participants / Compensation by JSCC</p> <p>(Fourth tier): Special Clearing Charge collected from non-defaulting Clearing Participants (ex-post facto contribution)</p> <p>(Fifth tier): Clearing Fund deposited by the Clearing Participants subject to Proration on Original Transactions (Third Tier Unused Portion) / Compensation by JSCC</p> <p>(Sixth tier): Special Clearing Charge collected from Clearing Participants subject to Proration on Original Transactions (Fourth Tier Unused Portion)</p> <p>(Seventh tier): Special Clearing Charge collected from Clearing Participants who are to receive variation margin, etc. (hereinafter “VM, etc.”) (ex-post facto contribution)</p>	<p>Original Transactions shall compensate losses according to the Proportion of Original Transactions, while Clearing Participants subject to Proration on Clearing Fund Requirement shall compensate losses according to the proportion of the required amount of Clearing Fund of each Clearing Participant. Also, the amount of compensation by each Clearing Participant in the third tier shall be capped at an amount equivalent to the required amount of the Clearing Fund for each Clearing Participant.</p> <ul style="list-style-type: none"> • Compensation by JSCC as mentioned in the third and fifth tiers shall be in the same proportion as the proportion of the amount to be covered by non-defaulting Clearing Participants to the total amount of the required amounts of Clearing Fund. • With regard to Special Clearing Charge (ex-post facto contributions), as mentioned in the fourth tier, the amount to be covered by Clearing Participants subject to Proration on Original Transactions shall be the amount corresponding to the Proportion of Original Transactions. No ceiling should be set for such compensation. The amount to be covered by the Clearing Participants subject to Proration on Clearing Fund Requirement shall be capped at an amount equivalent

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		<p>to the required amount of Clearing Fund for each Clearing Participant.</p> <ul style="list-style-type: none"> • Special Clearing Charge collected from Clearing Participants subject to Proration on Original Transactions in the sixth tier shall not exceed an amount obtained by deducting Special Clearing Charge in the fourth tier from the required amount of Clearing Fund for each Clearing Participant. • Clearing Participants who are to receive VM, etc., as mentioned in the seventh tier, shall mean the Clearing Participants receiving VM, etc. in terms of cumulative amount after the default (the same shall apply hereinafter). • VM, etc. shall be the total of the following amounts (the same shall apply hereinafter): <ul style="list-style-type: none"> (i) the amount obtained by deducting interests on substituting JGB for IM and Clearing Fund from the settlement amount of FOS to be paid/received between JSCC and Clearing Participants; and (ii) when payment obligation of a defaulting Clearing Participant which is the counterparty to the transaction of the relevant Clearing Participant has been fulfilled by funding by JSCC, the amount representing change in the market price of JGB with respect to such transaction after

Item	Description	Remarks
<p>(3) Handling of Loss Compensation with Clearing Fund Deposited by Non-defaulting Clearing Participants in Third Tier</p>	<ul style="list-style-type: none"> • After the allocation of the total amount of losses arising from a Clearing Participant's default to be compensated by non-defaulting Clearing Participants to the Original Transactions Prorating Method and the Clearing Fund Requirement Prorating Method according to the Proportion of Original Transactions, the Clearing Participants subject to Proration on Original Transactions shall cover an amount determined according to the Proportion of Original Transactions, while the Clearing Participants subject to Proration on Clearing Fund Requirement shall cover an amount prorated according to the required amount of Clearing Fund for each Clearing Participant. • The maximum amount to be compensated by using Clearing Fund of each non-defaulting Clearing Participant shall be, for the default which occurred during 30 calendar day period from the first default (if a default occurs during the relevant period, the relevant period will be extended for another 30 calendar days from such subsequent default and the same will apply to any subsequent default (such period is hereinafter referred to as the "Period with Cap"), the required amount of Clearing Fund for each non-defaulting Clearing Participant at the time of occurrence of the first default. • If the loss is compensated by using Clearing Fund, the deposited amount shall be replenished at the end of the Period with Cap to the required amount of Clearing 	<p>default.</p> <ul style="list-style-type: none"> • See 3. (1)

Item	Description	Remarks
(4) Handling of Loss Compensation with Special Clearing Charge Collected from Non-defaulting Clearing Participants in Fourth Tier	<p>Fund as of such time (see Annex 9).</p> <ul style="list-style-type: none"> • If the loss incurred by JSCC due to defaults, etc. of Clearing Participants exceeds the sum of the first, second and third tier of loss compensation resources, such loss shall be compensated with Special Clearing Charge collected from non-defaulting Clearing Participants (ex-post facto contribution). • Among non-defaulting Clearing Participants, Special Clearing Charge collected from each Clearing Participant subject to Proration on Clearing Fund Requirement shall be an amount prorated according to the required amount of the Clearing Fund for each of such participants and shall be, with respect to default occurred during the Period with Cap, capped at an amount equivalent to the required amount of the Clearing Fund for each non-defaulting Clearing Participant at the time of the occurrence of the first default. • Clearing Participants subject to Proration on Original Transactions shall compensate losses at each time a default occurs, regardless of the Period with Cap, by paying Special Clearing Charge according to the Proportion of Original Transactions. No ceiling should be set on such compensation. 	<ul style="list-style-type: none"> • See 3. (1)
(5) Handling of Loss Compensation by Clearing Participants subject	<ul style="list-style-type: none"> • If the loss incurred by JSCC due to defaults of Clearing Participants exceeds the sum of the first, second, third and fourth tier of loss compensation resources, such loss shall be compensated by Clearing Participants subject to Proration on Original Transactions. 	

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<p>to Proration on Original Transactions in Fifth and Sixth Tiers</p>	<ul style="list-style-type: none"> • If, at the time of the third tier loss compensation, the amount of losses to be covered by a Clearing Participant subject to Proration on Original Transactions based on the Proportion of Original Transactions falls below the required amount of the Clearing Fund, the difference between the required amount of Clearing Fund and the amount of losses compensated according to the Proportion of Original Transactions (hereinafter referred to as the “Third Tier Unused Portion”) shall constitute the fifth tier financial resources for loss compensation. • As for uncompensated losses by the first through fifth tier of loss compensation resources, if, at the time of the fourth tier loss compensation, the amount of losses to be covered by a Clearing Participant subject to Proration on Original Transactions based on the Proportion of Original Transactions falls below the required amount of Clearing Fund, the difference between the required amount of Clearing Fund and the amount of losses compensated according to the Proportion of Original Transactions (hereinafter referred to as the “Fourth Tier Unused Portion”) shall constitute the sixth tier financial resources for loss compensation. • The allocation of the Third and Fourth Tier Unused Portions among Clearing Participants subject to Proration on Original Transactions shall be decided in ascending order of the ratio of contributions in upper tiers of loss compensation financial resources. 	<ul style="list-style-type: none"> • Clearing Participants subject to Proration on Original Transactions are also required to pay the required amount of the Clearing Fund calculated by JSCC in advance, in the same manner as Clearing Participants subject to Proration on Clearing Fund Requirement. • Special Clearing Charge collected from each Clearing Participant subject to Proration on Original Transactions, as mentioned in the sixth tier, shall be, for defaults occurred during the Period with Cap, capped at an amount equivalent to the required amount of Clearing Fund for each Clearing Participants subject to Proration on Original Transactions at the time of the occurrence of the first default (see 3. (4)).
<p>(6) Handling of Loss Compensation by</p>	<ul style="list-style-type: none"> • If the loss incurred by JSCC due to defaults of Clearing Participants exceeds the sum of the first through sixth tier loss compensation resources, such loss shall be 	

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<p>Recipient Clearing Participants of VM, etc. in Seventh Tier</p> <p>(7) Posting Collateral during Period with Cap</p> <p>a. Method of Calculating Default</p>	<p>compensated with contributions from recipient Clearing Participants of VM, etc. (see Annex 6).</p> <ul style="list-style-type: none"> • Each recipient Clearing Participant of VM, etc. shall compensate the amount of loss allocated in proportion of cumulative net receivable of VM, etc. after the date of default (hereinafter the “Cumulative Net Receivable”) of each recipient Clearing Participant of VM, etc. In this case, the amount to be borne by each recipient Clearing Participant of VM, etc. shall be capped at the amount calculated by dividing the cumulative net VM, etc., payable by defaulting Clearing Participant after such default on a pro rata basis. • During the Period with Cap, the required amount of Clearing Fund at the time of the occurrence of the first default (an amount used for the loss compensation resources, if any, shall be excluded) shall be adopted as the required amount of Clearing Fund during such period. • During the Period with Cap, a deposit of funds in the amount calculated based on the daily fluctuations of the required amount of Clearing Fund is required as Default Contingent Margin, separately from the Clearing Fund. Default Contingent Margin shall be calculated as follows (see Annex 11). • The required amount of Clearing Fund calculated on a daily basis shall be referred to as the “Calculated Required Amount,” and the amount that will be actually used for calculating Default Contingent Margin shall be referred to as the “Applicable 	

Item	Description	Remarks
<p>Contingent Margin</p> <p>b. Deposit of Default Contingent Margin</p>	<p>Required Amount” (the same shall apply hereinafter).</p> <ul style="list-style-type: none"> • If the Calculated Required Amount for the current day exceeds the Applicable Required Amount for the previous day, the Calculated Required Amount for the current day shall be the Applicable Required Amount for the current day, and the amount of increase from the Applicable Required Amount on the business day immediately preceding the date of default shall be the required amount of Default Contingent Margin. • If the Calculated Required Amount for the current day is less than the Applicable Required Amount for the previous day, the Applicable Required Amount for the previous day shall be the Applicable Required Amount for the current day. (In this case, the required amount of the Default Contingent Margin will remain unchanged.) • The required amount of Default Contingent Margin shall become zero at the end of the Period with Cap. <ul style="list-style-type: none"> • If there is any shortfall in the deposited amount of the Default Contingent Margin, the amount equal to such shortfall shall be deposited by 11 a.m. on the business day immediately following the occurrence of such shortfall. • Handling of deposit (deposit of cash, deposit of substituting JGB) of the Default Contingent Margin shall be the same as IM. 	<ul style="list-style-type: none"> • The Default Contingent Margin deposited during the Period with Cap will be transferred to the deposited amount of Clearing Fund on the business day immediately following the last day of the Period with Cap.

Item	Description	Remarks
<p>(8) Handling of Clearing Participant who Submitted Application for Renunciation</p>	<ul style="list-style-type: none"> • The Clearing Participant who submitted the application for renunciation of the Clearing Qualification will renounce the Clearing Qualification on the day when the period of 30 days has elapsed since the application or the day when settlement of outstanding trades, including those related to auction, are completed, whichever is later. • However, if an application for renunciation is submitted during the Period with Cap, or if a default occurs before the day when the period of 30 days has elapsed since the application or the day when all the settlements are completed, whichever is later, such Clearing Participant will renounce the Clearing Qualification at the end of the Period with Cap or at the completion of all settlements, whichever is later (see Annex 12). • The Clearing Participant who submitted an application for renunciation of Clearing Qualification will be required to compensate losses by Clearing Fund (third and fifth tier), to contribute Special Clearing Charge (fourth and sixth tier) and to participate in compensation by the recipient Clearing Participant of VM, etc. (seventh tier) for the loss arising from Clearing Participant's default that occurred before the renunciation of the Clearing Qualification. 	<ul style="list-style-type: none"> • Currently, renunciation of Clearing Qualification requires an approval of JSCC.
<p>4. Revision of Scheme for Managing Settlement Default</p>		

Item	Description	Remarks
(1) Process for Managing Position	<ul style="list-style-type: none"> • In the event of Clearing Participant’s default, JSCC will dispose of the position of the defaulting Clearing Participant as follows: <ul style="list-style-type: none"> i. JSCC will call on Clearing Participants who will cooperate in the default management process; ii. The auction will be conducted to restructure the unsettled position of the defaulting Clearing Participant; iii. The negotiation will be made (in the event that the auction was unsuccessful) iv. All positions held by all Clearing Participants will be terminated based on close-out netting at the market value (tear-up). (when the negotiation fails) 	<ul style="list-style-type: none"> • For examples of typical default management schedules, see Annex 13.
(2) Clearing Participants to Cooperate in Default Management	<ul style="list-style-type: none"> • JSCC shall designate five Clearing Participants to co-operate in default management process (hereinafter “Cooperating Participants”). The Cooperating Participant shall assign one personnel per company for the default management process. • The term of the Cooperating Participant shall be one year. • Of the five Cooperating Participants, the terms of three or two firms shall expire every six months, and new Cooperating Participants shall be selected to replace the Clearing Participants who have finished their terms. 	<ul style="list-style-type: none"> • JSCC shall prepare a list of Clearing Participants (a list of Cooperating Participants) who are Financial Instruments Business Operators and also JGB Market Special Participants (<i>Primary Dealers</i>), and are ranked top 80% in terms of the past record of assumption of obligations. Five companies are selected from the list as Cooperating Participants. • Clearing Participants whose terms have ended will be taken off the list of Cooperating Participants. However, if there are less than five Clearing Participants remaining on the list, JSCC shall prepare a new list.

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(3) Default Management Committee (DMC)	<ul style="list-style-type: none"> • Default Management Committee (a standing committee, hereinafter “DMC”) will be comprised of personnel assigned by the Cooperating Participants. DMC shall be positioned as an advisory body of JSCC with regard to default management process. • The members of DMC shall gather immediately in the event of occurrence of a default and take actions JSCC considers necessary, such as offering advice on the makeup of baskets that would become subject of auctions. 	<ul style="list-style-type: none"> • The members of DMC have a duty of confidentiality in relation to default management process. • At normal times, DMC shall plan and conduct fire-drills assuming a default of Clearing Participant. • All Clearing Participants who may serve as Cooperating Participants (all Clearing Participants for fire-drills related to second-stage auction) shall participate in such drills (see 4. (4)b.).
(4) Auction on Positions a. First-stage Auction	<ul style="list-style-type: none"> • JSCC shall hold an auction promptly with regard to positions held by a defaulting Clearing Participant, as described below. • JSCC shall consider the attributes of issues comprising the defaulting Clearing Participant’s positions, etc. in light of DMC’s advice, split the positions into multiple baskets and hold an auction for each basket. • Eligible bidders for a first-stage auction shall be the Financial Instruments Business Operators who are JGB Market Special Participants and are ranked top 80% in terms of the past record of assumption of obligations. • Clearing Participants eligible for bid in such auction shall notify JSCC of a basket on which they desire to bid in the auction in light of the outline of each basket presented by JSCC. • Each Clearing Participant is obliged to place a bid in the auction in relation to the basket for which it has given notification to JSCC as described above. 	<ul style="list-style-type: none"> • It is possible to hold an auction for a defaulting Clearing Participant’s positions collectively depending on the content, rather than splitting them into multiple baskets. • Cooperating Participants are also allowed to bid. • Clearing Participants must not leak information about auctions, such as the content of each basket (including the outline of each basket presented by JSCC in advance).

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	<ul style="list-style-type: none"> <li data-bbox="443 209 1384 480">• An auction shall become successful if losses fixed by the successful bid price do not exceed the predetermined amount of financial resources for loss compensation for each basket. When the auction becomes successful, buying and selling of JGB and Cash-secured Bond Lending Transactions corresponding to the basket subject to such auction shall be concluded between the successful bidder Clearing Participant and JSCC. <li data-bbox="443 879 1384 1007">• There shall be one successful bidder Clearing Participant for each auction. If more than one Clearing Participants submit bids at the highest price, the successful bidder Clearing Participant will be determined by lottery. <li data-bbox="443 1214 1384 1246">• The successful bid price shall be determined by either the first price method or the 	<ul style="list-style-type: none"> <li data-bbox="1424 209 2116 384">• Buying and selling of JGB and Cash-secured Bond Lending Transactions to be executed as a result of the auction shall be included in the calculation of the Required Initial Margin Amount. <li data-bbox="1424 400 2116 863">• Financial resources for loss compensation in the first-stage auction shall equal to the sum of IM and Clearing Funds from defaulting Clearing Participant and a part of JSCC's financial resources and shall be prorated for each basket. However, if DMC determines that this amount is highly likely to exceed the financial resources mentioned above given the status of a defaulting Clearing Participant's positions or other factor, JSCC may expand the scope of such financial resources, omit a first-stage auction or take any other necessary measures. <li data-bbox="1424 879 2116 1198">• A successful bidder Clearing Participant shall settle the transaction on the basket concluded as a result of the auction with JSCC. In the event of a default in the settlement to be performed as a result of successful completion of the auction, such default shall be treated in the same manner as Settlement Default in respect of Transactions Subject to Clearing. <li data-bbox="1424 1214 2116 1246">• The first price method refers to a method in which a bidder

Item	Description	Remarks
<p>b. Second-stage Auction</p>	<p>second price method according to the number of bidding Clearing Participants for each auction.</p> <ul style="list-style-type: none"> • JSCC shall hold a second-stage auction for baskets for which the first-stage auction was unsuccessful. • A second-stage auction shall cover all issues in all baskets subject to the second-stage auction on a single-issue basis. • All JSCC Clearing Participants may bid in a second-stage auction, and such participants are not obliged to place bids. • JSCC shall present details of trades subject to the auction to all Clearing Participants. Any Clearing Participant who desires to join the bid may do so for each issue. • An auction shall become successful if the total amount of losses fixed by the successful bid prices of all issues does not exceed the predetermined amount of financial resources for loss compensation. When an auction becomes successful, buying and selling of JGB and Cash-secured Bond Lending Transactions corresponding to each issue subject to such auction shall be concluded between the successful bidder Clearing Participant and JSCC. 	<p>who offers the highest price in an auction wins the bid, and concludes the resulting transaction at its bid price.</p> <ul style="list-style-type: none"> • The second price method refers to a method in which a bidder who offers the highest price in an auction wins the bid, and concludes the resulting transaction at the second-highest bid price, rather than at its own bid price. • As to second-stage auctions, re-auction will not be held, except for a case where non-defaulting Clearing Participants do not post Special Clearing Charge collateral (see 4. (4)c). • If the total amount of losses fixed by the successful bid prices of all issues exceeds a predetermined amount of financial resources for loss compensation, or if there is any issue for which no bid is placed, the second-stage auction shall be deemed unsuccessful. • Buying and selling of JGB and Cash-secured Bond Lending

Item	Description	Remarks
c. Special Clearing Charge Collateral	<ul style="list-style-type: none"> • The successful bid price shall be determined by the first price method regardless of the number of bidding Clearing Participants. • If the amount of losses fixed by the successful bid price in a second-stage auction is the amount that requires compensation with Special Clearing Charge, JSCC shall receive Special Clearing Charge collateral from non-defaulting Clearing Participants to secure its payment obligations for Special Clearing Charge in order 	<ul style="list-style-type: none"> Transactions to be executed as a result of the auction shall be included in the calculation of the Required Initial Margin Amount. • Financial resources for loss compensation for a second-stage auction shall equal to the sum of a surplus of financial resources for the first-stage auction, Clearing Funds of non-defaulting Clearing Participants, Special Clearing Charge from non-defaulting Clearing Participants (ex-post facto contribution), JSCC's additional financial resources and the amount to be covered by recipient Clearing Participants of VM, etc. • A successful bidder Clearing Participant shall settle the transaction on the issue concluded as a result of the auction with JSCC. In the event of a default in the settlement to be performed as a result of successful completion of the auction, such default shall be treated in the same manner as Settlement Default in respect of Transactions Subject to Clearing. • Special Clearing Charge shall be paid on the business day immediately following the date of a second-stage auction.

Item	Description	Remarks
<p>(5) The Scheme for Increasing Possibility of Successful Auctions</p> <p>a. First-stage Auction</p>	<p>to avoid an ex-post failure of a second-stage auction resulting from the amount of losses to JSCC exceeding the financial resources for loss compensation due to a failure of payment of Special Clearing Charge.</p> <ul style="list-style-type: none"> • The amount of Special Clearing Charge collateral shall be equivalent to the amount by which the total amount of IM and Default Contingent Margin deposited by a non-defaulting Clearing Participant with JSCC in relation to transactions subject to clearing falls short of the amount of Special Clearing Charge to be borne by the relevant non-defaulting Clearing Participant. When such shortfall is covered, the second-stage auction will be deemed successful. • If a non-defaulting Clearing Participant fails to post Special Clearing Charge collateral with JSCC, a second-stage auction shall be deemed unsuccessful and another round of second-stage auction shall be held on the following business day. • As a scheme for increasing the possibility of the successful auctions, the following measures shall be taken for each auction; • If losses incurred by JSCC due to a default of a Clearing Participant are to be compensated with Clearing Funds of non-defaulting Clearing Participants, all or a part of Clearing Fund of the successful bidder Clearing Participant in the first-stage auction shall be used after Clearing Funds of other Clearing 	<ul style="list-style-type: none"> • When Special Clearing Charge collateral is required according to the level of the successful bid price in a second-stage auction, JSCC shall notify the Clearing Participants the amount of the Special Clearing Charge collateral after the second-stage auction. Clearing Participants shall post such Special Clearing Charge collateral during the date of the second-stage auction. • JSCC shall take default management process for Clearing Participants fail to post Special Clearing Charge collateral.

Item	Description	Remarks
<p>b. Second-stage Auction</p> <p>(6) Treatment in the Event of Failure of Second-stage Auction</p>	<p>Participants (low priority use of Clearing Fund).</p> <ul style="list-style-type: none"> • With regard to a basket applied for a bidding, the entire amount of Clearing Fund of a Clearing Participant who does not place a bid shall be used before using the Clearing Funds of other Clearing Participants (priority use of Clearing Fund). • If losses incurred by JSCC due to a default of a Clearing Participant are to be compensated with Clearing Funds of non-defaulting Clearing Participants, all or a part of Clearing Fund of the successful bidder Clearing Participant in the second-stage auction shall be used after using Clearing Funds of other Clearing Participants (low priority use of Clearing Fund). • In a second-stage auction, if an amount equivalent to losses to JSCC resulting from a settlement default of a Clearing Participant (including an amount equivalent to losses in an auction) is found to exceed financial resources for loss compensation, or if there is any issue for which no bid is placed, the second-stage auction shall be deemed unsuccessful, and a consultation shall be held promptly to agree on possible countermeasures between JSCC and all non-defaulting Clearing Participants. • If an agreement is reached on such countermeasures as a result of such 	<ul style="list-style-type: none"> • From the aspect of information management, JSCC shall introduce priority use of Clearing Fund in order to prevent Clearing Participants who do not have the will to bid from applying for the auction. However, concerning the basket which is unpopular for such reasons as it includes less liquid issue, JSCC can exempt it from priority use with the advice of DMC. • JSCC and non-defaulting Clearing Participants (all of them) shall make utmost efforts to reach an agreement on countermeasures for covering losses incurred by JSCC and enabling JSCC to continue its clearing services, from the viewpoint of resolution of a disorder arising from a Clearing Participant's default and of prompt restoration of order in the market. • An agreement on the countermeasures at a consultation shall

Item	Description	Remarks
(7) Others	<p>consultation, procedures must be taken in line with the countermeasures so agreed.</p> <ul style="list-style-type: none"> • Such a consultation shall be held by the business day immediately following the date of the second-stage auction. • If no agreement is reached in such consultation by the next day of the second-stage auction, all outstanding issues possessed by all Clearing Participants (including issues for which trade concluded as a result of the first-stage auction) shall be settled through a close-out netting based on the market value (tear-up). <p>• If Settlement Default occurs in respect of the Cash-secured Bond Lending Transactions which JSCC executes with the funding party (Clearing Participant) to avoid Settlement Default from occurring as a result of default of Clearing Participants, such Settlement Default shall be treated in the same manner as</p>	<p>be reached with consents of all the participants in attendance.</p> <ul style="list-style-type: none"> • An expansion of financial resources by additional contribution from non-defaulting Clearing Participants or tear-up intended for the specific issue (partial tear-up), etc. may be the countermeasure to be taken • Tear-up shall only be used as means in emergency situations in which a defaulting Clearing Participant's outstanding positions remain unsettled in the two stages of auction and no appropriate countermeasures are adopted through consultation due to such reasons as market disruption, etc. • Tear-up shall be performed at the appraised market value of the day. • If tear-up is conducted, losses from net payable of the VM, etc. in the defaulting Clearing Participant's position up to the time tear-up is conducted shall be compensated using the loss compensation Resources.

Item	Description	Remarks
5. Date of Enforcement	Settlement Default in respect of Transactions Subject to Clearing. • These new system and revision of scheme shall be implemented around the second half of the fiscal year 2014, except for the introduction of Market Impact Charge, which shall be implemented three months after the date of enforcement.	

End of Document

Calculation Method of Market Impact Charge

1. Determination of criterial spread

Based on the market survey result concerning bid-asked spread (discrepancy between selling price and buying price), discrepancy from the appraised market value (criterial spread) shall be determined referencing the position scale of each issue.

<p>a. Determination of the guideposts (grids) for the axis of position scale</p>	<ul style="list-style-type: none">➤ Concerning the issues to be assumed by us for clearing, certain classes are introduced to get them categorized by type of securities, original maturity, and current maturity.➤ For each issue or for each class, three guideposts (grids), or G1, G2 and G3, are determined for the axis of position size.<ul style="list-style-type: none">G1: This is determined by JSCC based on the median in the distribution of deal size concerning Buying and selling of Japanese government bonds transactions (observed during the target period of 6 months), which are put subject to the clearing operation.G2: This is determined by JSCC based on the maximum value in the distribution of deal size concerning Buying and selling of Japanese government bonds transactions (observed during the period of 6 months), which are put subject to the clearing operation.G3: This is determined by JSCC based on the maximum value from among the quantity of offsetting position data (by account and by issue), which are calculated from the Buying and selling of Japanese government bonds, Cash-secured Bond Lending Transactions and Repo Transactions, which are put subject to the clearing operation.➤ Criterial spread for each of those three grids will be determined based on the market survey result.<ul style="list-style-type: none">(i) Market survey will be conducted quarterly based on prices on the first business day of the month.(ii) Market survey will not cover STRIPS. JSCC will determine criterial spread for STRIPS by reference to criterial spread for fixed rate JGB with the same remaining maturity. (In principle, G3 for fixed rate JGB with same remaining maturity category to apply to G1, G2 and G3 of STRIPS.)(iii) Procedures in (i) and (ii) above are subject to revision as necessary in light of feasibility of market survey and status of Assumption of Obligations
<p>b. Determination of criterial spread</p>	<ul style="list-style-type: none">➤ Criterial spread for elsewhere than those three grids will be determined by interpolation, etc. as follows:<ul style="list-style-type: none">Interval of 0 value through G1: Criterial spread as determined for G1Interval of G1 to G2: Criterial spread as calculated by exponential interpolation where the criterial spread for G1 is used as the start point and the criterial spread for G2 is used as the terminal pointInterval of G2 to G3: Criterial spread as calculated by exponential interpolation where the criterial spread for G2 is used as the start point and the criterial spread for G3 is used as the terminal pointArea beyond G3: Criterial spread as calculated by extrapolation, based on the interpolation for the interval of G2~G3

2. Calculation of the Equivalent of Transaction Execution Cost for each issue

The Equivalent of Transaction Execution Cost for each issue shall be obtained by having the modulus of the quantity of offsetting position by issue multiplied by BPV (basis point value) and by criterial spread. (As for Japanese government bonds with floating rate, it is obtained by having the former multiplied by criterial spread only.)

<p>a. Calculation of offsetting position for each issue</p>	<p>➤ The quantity of offsetting position for each issue represents the remaining balance of the quantity after netting the obligation of respective Clearing Participant to deliver JGB to JSCC and the obligation of JSCC to deliver JGB to the Clearing Participant (both quantity basis) for each issue on all settlement dates. (For each netting account or for each IMG.)</p>
<p>b. Determination of BPV</p>	<p>➤ BPV is calculated in the evening of the preceding business day before the day when the premium is charged, and thus calculated BPV shall be applied to respective issue.</p>
<p>c. Calculation of the Equivalent of Transaction Execution Cost for each issue</p>	<p>➤ Any issue other than Japanese government bonds with floating rate:</p> <p style="padding-left: 40px;">The Equivalent of Transaction Execution Cost for each issue = quantity of offsetting position × BPV × Applicable criterial spread (bps)</p> <p>➤ Japanese government bonds with floating rate :</p> <p style="padding-left: 40px;">The Equivalent of Transaction Execution Cost for each issue = quantity of offsetting position × Applicable criterial spread (¥)</p>

3. Calculation of Market Impact Charge for each Clearing Participant

The Equivalent of Transaction Execution Cost for each issue shall be added together for all issues concerning a specific Clearing Participant, to calculate the Required Market Impact Charge for the Clearing Participant. In case two or more netting accounts are opened by a single Clearing Participant, the said required amount shall be calculated for each of the netting accounts or for each IMG.

<p>a. Calculation of the Required Market Impact Charge for respective Clearing Participant</p>	<p>➤ The Equivalent of Transaction Execution Cost for each issue for a Clearing Participant shall be added together for all issues, and the resultant sum shall be used as the Required Market Impact Charge for the said Clearing Participant. (The said Required Market Impact Charge shall be calculated for each of the netting accounts or for each IMG.)</p>
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fig.1 Deviation from the appraised market value (assumed criterial spread)

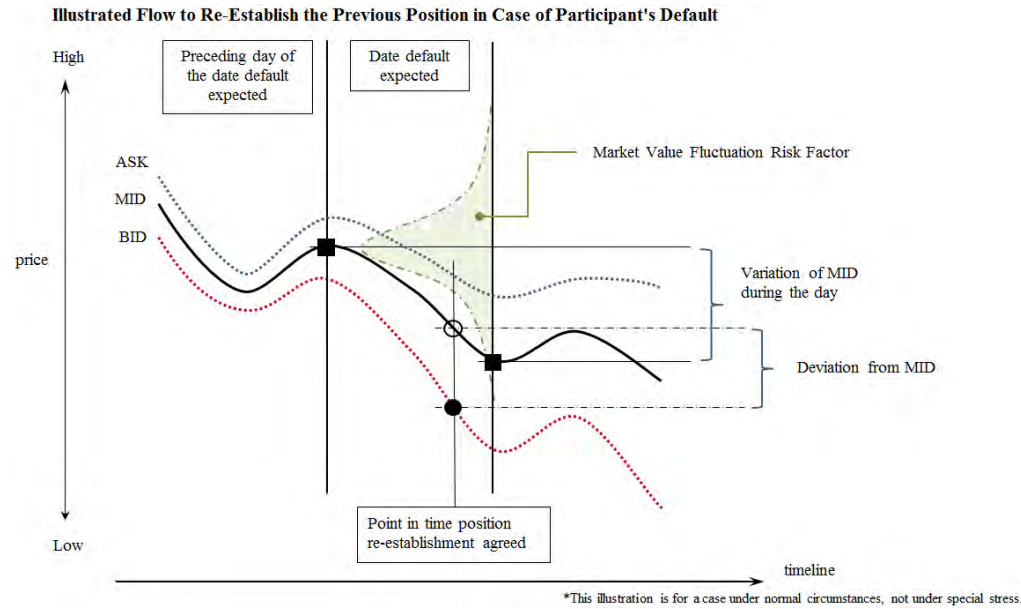


fig.2 Interpolation, etc. to determine criterial spread beyond G3

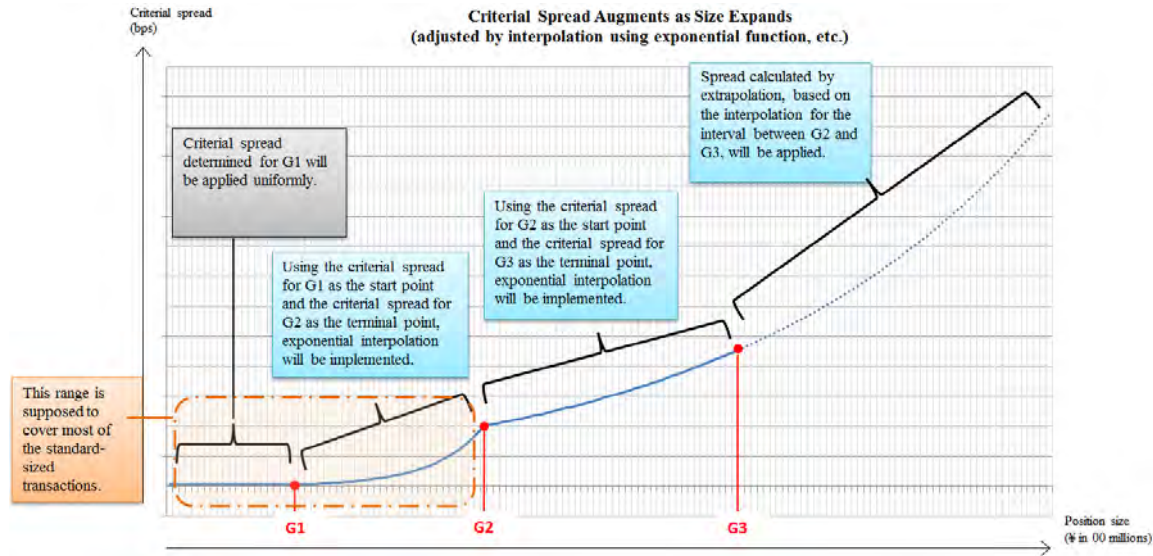
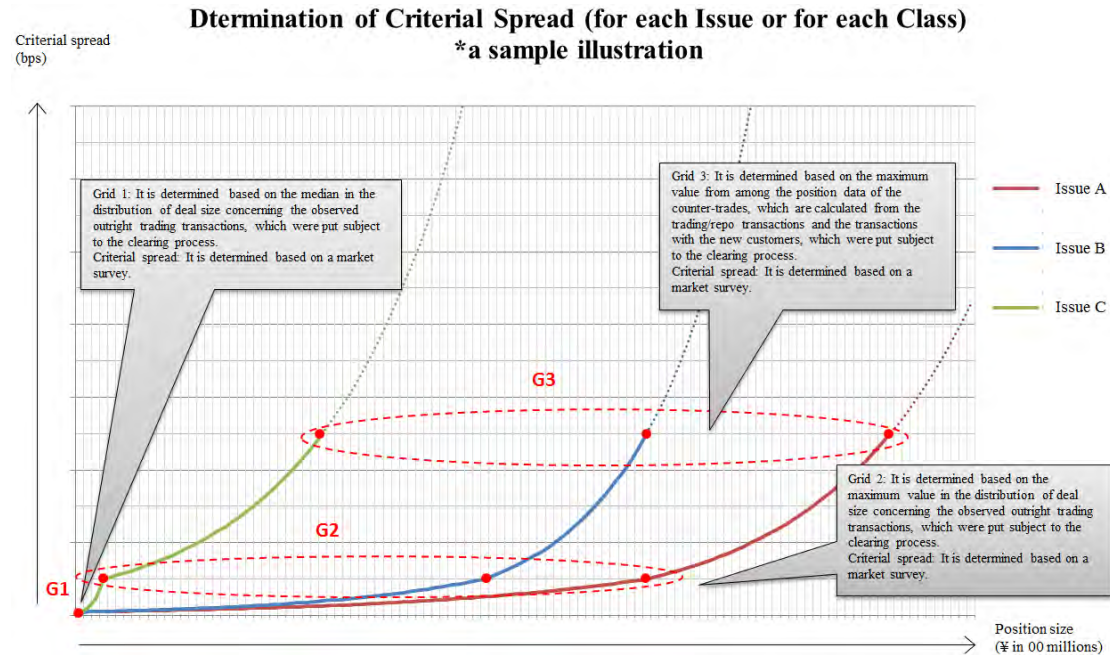


fig.3 Determination of criterial spread for each issue or for each class



Premium Deposit Required for Initial Margin as Triggered by Credit Standing

Additional deposit is required for initial margin as triggered by credit standing	Premium required
In case credit standing is judged poorer than A- in any of the concerned ratings (*1, 2). (*3)	10% premium is required (*6)
In case credit standing is judged poorer than BBB+ in any of the concerned ratings (*1, 2). (*3)	50% premium is required (*6)
In case credit standing is judged poorer than BBB in any of the concerned ratings (*1, 2). (*3)	100% premium is required (*6)
In case credit standing is judged poorer than A- in either one of the concerned ratings (*1, 2) and at the same time capital-to-risk ratio is below certain level or the like (250% for capital-to-risk ratio, 10% for capital adequacy ratio when the international standards are applied, 5% for capital adequacy ratio when the domestic standards are applied, and 500% for solvency margin ratio). (*3, 4, 5)	10% premium is required (*6)
In case credit standing is judged poorer than BBB+ in either one of the concerned ratings (*1, 2) and at the same time capital-to-risk ratio is below certain level or the like (250% for capital-to-risk ratio, 10% for capital adequacy ratio when the international standards are applied, 5% for capital adequacy ratio when the domestic standards are applied, and 500% for solvency margin ratio). (*3, 4, 5)	50% premium is required (*6)
In case credit standing is judged poorer than BBB in either one of the concerned ratings (*1, 2) and at the same time capital-to-risk ratio is below certain level or the like (250% for capital-to-risk ratio, 10% for capital adequacy ratio when the international standards are applied, 5% for capital adequacy ratio when the domestic standards are applied, and 500% for solvency margin ratio). (*3, 4, 5)	100% premium is required (*6)

(*1) In case no rating is obtained by the target clearing participant, rating of their parent company, etc. will be used. (In case rating is obtained neither by the target participant nor by their parent company, etc., rating of an entity in their group, etc. will be used instead.) In such a case, stipulation for an entity of one-notch higher rating will be applied to them.

(*2) Rating used herewith represents the rating concerning the debt service capacity for long-term debt, given by any of the “credit rating agencies” as stipulated by the Financial Instruments & Exchange Act (specifically per Article 2-36 of the Act: They are currently represented by such entities as Japan Credit Rating Agency, Moody’s Japan, Moody’s SF Japan, Standard & Poor’s Rating Services Japan [SPJ], Rating & Investment Information, Fitch Ratings Japan, Nippon Standard & Poor’s [NSP]) or by any of its specified affiliated companies (per Article 116-3-2 of the Cabinet Ordinance concerning Financial Instruments Business, etc.) (but not including any of the so-called non-solicited arbitrary ratings).

(*3) In each individual case, credit judgment shall be made in a comprehensive manner, not merely based on the rating criteria, but also comparing the market information of the target clearing participant (CB spread, CDS spread, stock price, etc.) with that of a company of the same rating level, as well as taking into account such other information as whether there has not been any abrupt change lately, whether there has not been any significant decline in important financial parameters (liquidity at hand, etc.), any peculiar change in position of the said participant, and so forth.

(*4) When a securities finance company or a tanshi company (money market broker) faces a similar situation, same measure shall be taken for them too.

(*5) In case of a special financial instruments business operator, their credit standing shall be judged by capital-to-risk ratio or by consolidated capital-to-risk ratio.

(*6) Individual premium rate shall be determined within given %, by specifically referencing the financial condition (liquidity at hand, etc.) and the position data or so of the target participant.

Outline of Revision of Additional Initial Margin Requirement in respect of JGB OTC Transactions

As a result of the introduction of the additional initial margin requirement in line with the credit standing, the revision of calculation method for market value fluctuation risk factor and the introduction of the market impact charge, the Required Initial Margin Base Amount will become high on average comparing to that calculated under current system. Therefore, the additional initial margin requirement will be revised in the manner outlined below:

Item	Current System	Revision						
1. Additional Initial Margin When Financial Conditions of Clearing Participant Falls below Criteria for Obtaining JGB OTC Transaction Clearing Qualification	<ul style="list-style-type: none"> • Depending on the category specified in below Items, if net worth, capital-to-risk ratio or non-consolidated or consolidated solvency margin ratio, as the case may be, of a clearing participant falls under the level specified below, JSCC shall raise the Required Amount of Initial Margin for such clearing participant in the manner specified below, and, if the initial margin deposited amount falls short of the Required Initial Margin Amount, require additional deposit from such clearing participant by 11:00 on the next day. * A Clearing Participant who obtained the Clearing Qualification which is subject to the condition that its parent company guarantees all of its obligations owed to JSCC will not be subject to such additional initial margin. (1) Net Worth (or Net Assets for Participants other than Financial Instruments Business Operators; same applies hereinafter) <table border="1" data-bbox="618 1054 1339 1310"> <thead> <tr> <th data-bbox="618 1054 943 1107">Level</th> <th data-bbox="943 1054 1339 1107">Action</th> </tr> </thead> <tbody> <tr> <td data-bbox="618 1107 943 1211">JPY 2 bil. or more and less than JPY3 bil.*</td> <td data-bbox="943 1107 1339 1211">Required Initial Margin Amount shall be raised by 1.5 times</td> </tr> <tr> <td data-bbox="618 1211 943 1310">Less than JPY 2 bil.</td> <td data-bbox="943 1211 1339 1310">Required Initial Margin Amount shall be doubled</td> </tr> </tbody> </table>	Level	Action	JPY 2 bil. or more and less than JPY3 bil.*	Required Initial Margin Amount shall be raised by 1.5 times	Less than JPY 2 bil.	Required Initial Margin Amount shall be doubled	<ul style="list-style-type: none"> • No change. • No change to additional initial margin outlined in (1) on the left.
Level	Action							
JPY 2 bil. or more and less than JPY3 bil.*	Required Initial Margin Amount shall be raised by 1.5 times							
Less than JPY 2 bil.	Required Initial Margin Amount shall be doubled							

Item	Current System	Revision												
	<p data-bbox="584 196 1361 288">* JPY 2.5 bil. for a clearing participant who obtained JGB OTC Transaction Clearing Qualification by requesting a special treatment for an intermediary service provider.</p> <p data-bbox="528 308 1350 336">(2) Capital-to-Risk Ratio (Financial Instruments Business Operator)*</p> <table border="1" data-bbox="618 344 1339 603"> <thead> <tr> <th data-bbox="618 344 943 395">Level</th> <th data-bbox="943 344 1339 395">Action</th> </tr> </thead> <tbody> <tr> <td data-bbox="618 395 943 499">155% or more and less than 170%</td> <td data-bbox="943 395 1339 499">Required Initial Margin Amount shall be raised by 1.5 times</td> </tr> <tr> <td data-bbox="618 499 943 603">Less than 155%</td> <td data-bbox="943 499 1339 603">Required Initial Margin Amount shall be doubled</td> </tr> </tbody> </table> <p data-bbox="584 611 1361 738">* For securities finance companies and call loan dealers, a similar action will be taken if any equivalent event occurs. Furthermore, for special financial instruments business operators, it shall be capital-to-risk ratio or consolidated capital-to-risk ratio.</p> <p data-bbox="528 759 1361 839">(3) Non-consolidated or Consolidated Solvency Margin Ratio (Insurance Company)</p> <table border="1" data-bbox="618 847 1339 1102"> <thead> <tr> <th data-bbox="618 847 943 898">Level</th> <th data-bbox="943 847 1339 898">Action</th> </tr> </thead> <tbody> <tr> <td data-bbox="618 898 943 1002">250% or more and less than 300%</td> <td data-bbox="943 898 1339 1002">Required Initial Margin Amount shall be raised by 1.5 times</td> </tr> <tr> <td data-bbox="618 1002 943 1102">Less than 250%</td> <td data-bbox="943 1002 1339 1102">Required Initial Margin Amount shall be doubled</td> </tr> </tbody> </table>	Level	Action	155% or more and less than 170%	Required Initial Margin Amount shall be raised by 1.5 times	Less than 155%	Required Initial Margin Amount shall be doubled	Level	Action	250% or more and less than 300%	Required Initial Margin Amount shall be raised by 1.5 times	Less than 250%	Required Initial Margin Amount shall be doubled	<ul data-bbox="1395 308 1966 842" style="list-style-type: none"> <li data-bbox="1395 308 1966 387">• Additional initial margin requirement in (2) on the left shall be abolished. <li data-bbox="1395 762 1966 842">• Additional initial margin requirement in (3) on the left shall be abolished.
Level	Action													
155% or more and less than 170%	Required Initial Margin Amount shall be raised by 1.5 times													
Less than 155%	Required Initial Margin Amount shall be doubled													
Level	Action													
250% or more and less than 300%	Required Initial Margin Amount shall be raised by 1.5 times													
Less than 250%	Required Initial Margin Amount shall be doubled													

Item	Current System	Revision												
2. Additional Initial Margin When Net Worth is Too Small relative to Required Initial Margin Base Amount	<ul style="list-style-type: none"> If the value obtained by dividing the Required Initial Margin Base Amount ^{*1*2} by net worth (hereinafter referred to as “Initial Margin Ratio”) ^{*3} falls under level specified below, JSCC shall raise the Required Initial Margin Amount for the relevant clearing participant as specified below ^{*4}. If the amount of initial margin deposited by such clearing participant falls short of the Required Initial Margin Amount, then JSCC shall request additional deposit by 11:00 on the next day. *1 When applying this Item #2 to a clearing participant who has multiple Netting Accounts (excluding Trust Accounts), the Required Initial Margin Base Amount shall be the sum of the Required Initial Margin Base Amount for all of such Netting Accounts. *2 When applying this Item to a Clearing Participant who obtained the Clearing Qualification which is subject to the condition that its parent company guarantees all of its obligations owed to JSCC, the Required Initial Margin Base Amount shall be the sum of the Required Initial Margin Base Amount for the clearing participant and its parent company. *3 For Trust Accounts, the Initial Margin Ratio shall obtained by following formula: $\text{Initial Margin Ratio} = \frac{\text{Required Initial Margin Base Amount (Total Amount for all Trust Accounts if there are multiple Trust Accounts)}}{\text{JGB Balance in Trust Properties} \times (1 - \text{Largest Risk Factor for each Issue}/100)}$ *4 When applying to clearing participants with Trust Accounts, the Required Initial Margin Amount will be raised separately for Trust Accounts and other Netting Accounts. <table border="1" data-bbox="548 1046 1357 1256"> <thead> <tr> <th>Level</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td>75% or more and less than 87.5%</td> <td>Required Initial Margin Amount shall be raised by 1.5 times</td> </tr> <tr> <td>87.5% or more</td> <td>Required Initial Margin Amount shall be doubled</td> </tr> </tbody> </table>	Level	Action	75% or more and less than 87.5%	Required Initial Margin Amount shall be raised by 1.5 times	87.5% or more	Required Initial Margin Amount shall be doubled	<ul style="list-style-type: none"> As to Item#2 on the left, the Required Initial Margin Amount increase multiplier will be revised as follows: <table border="1" data-bbox="1386 895 1955 1256"> <thead> <tr> <th>Level</th> <th>措置</th> </tr> </thead> <tbody> <tr> <td>75% or more and less than 87.5%</td> <td>Required Initial Margin Amount shall be raised by <u>1.3</u> times</td> </tr> <tr> <td>87.5% or more</td> <td>Required Initial Margin Amount shall be raised by <u>1.6</u> times</td> </tr> </tbody> </table>	Level	措置	75% or more and less than 87.5%	Required Initial Margin Amount shall be raised by <u>1.3</u> times	87.5% or more	Required Initial Margin Amount shall be raised by <u>1.6</u> times
Level	Action													
75% or more and less than 87.5%	Required Initial Margin Amount shall be raised by 1.5 times													
87.5% or more	Required Initial Margin Amount shall be doubled													
Level	措置													
75% or more and less than 87.5%	Required Initial Margin Amount shall be raised by <u>1.3</u> times													
87.5% or more	Required Initial Margin Amount shall be raised by <u>1.6</u> times													

Revision of Additional Initial Margin Requirement at Time of Market Price Fluctuation

1. Calculation Basis for Additional Initial Margin Charged at the Time of Market Price Fluctuation

- The trigger level of and calculation basis for additional initial margin call will be revised in the following manner:

[Trigger Level and Calculation Base for Additional Initial margin]

JSCC will call for additional initial margin when the price fluctuation of the 10-year JGB Futures (central month) contract price as of the close of the morning session from the contract price as of the market close on the previous day exceeds the trigger level specified below:

Current System		Revised System	
Trigger Level	Requirement Calculation	Trigger Level	Requirement Calculation
Established Value of Market Value Fluctuation Risk Factor (fixed rate 7-10 year class), rounded to the nearest two decimal places (0.005 being rounded upwards), then the figure on the second decimal place further rounded to 0, if the number on the second decimal place is 0 to 4, and rounded to 5, if 5 to 9	Required Initial Margin Base Amount calculated on the previous business day <u>times 1.5</u>	Established Value of Market Value Fluctuation Risk Factor (fixed rate 7-10 year class) rounded to the nearest two decimal places (0.005 being rounded upwards), then the figure on the second decimal place further rounded to 0, if the number on the second decimal place is 0 to 4, and rounded to 5, if 5 to 9	Required Initial Margin Base Amount calculated on the previous business day <u>times 1.3</u>
Value obtained above <u>times 1.5</u> . In the resultant value, the figure on the second decimal place shall be rounded to 0 if the number on the second decimal place is 0 to 4, and rounded to 5, if 5 to 9	Required Initial Margin Base Amount calculated on the previous business day <u>times 2</u>	Value obtained above <u>times 1.3</u> . In the resultant value, the figure on the second decimal place shall be rounded to 0 if the number on the second decimal place is 0 to 4, and rounded to 5, if 5 to 9	Required Initial Margin Base Amount calculated on the previous business day <u>times 1.6</u>

2. Temporary Change of Market Value Fluctuation Risk Factor and Setoff Ratio as of Trigger Date of Additional Initial Margin Call at the Time of Market Price Fluctuation

- The date on which new Market Price Fluctuation Risk Factor and setoff ratio start to apply will be revised in the following manner:

[Date on which Temporarily Changed Market Fluctuation Risk Factor and Setoff Ratio Start to Apply]

Current System	Revised System
Start to apply from <u>the third business day</u> following the trigger date. (Start to apply from the calculation of Required Initial Margin Amount to be deposited on <u>the fourth business day</u> after the trigger date.)	Start to apply from <u>the next business day</u> of the trigger date. (Start to apply from the calculation of Required Initial margin Amount to be deposited on <u>the second business day</u> following the trigger date.)

Hypothetical Calculation of Risk Amount Exceeding Collateral in Stress Test and Required Amount of Clearing Fund

1. Hypothetical Calculation of Risk Amount Exceeding Collateral in Stress Test

[Hypothetical Positions]

*Face Value +: Long -: Short

<Securities Firm A>

Netting Account	Issue X Position Face Value	Required IM Base Amount	Required IM Amount
A-SEC-1	1,000	20	20

[Position of Each Clearing Participant]

<Securities Firm A>

Issue X Position Face Value	Required IM Amount
1,000	20



[Risk Amount Exceeding Collateral for Each Clearing Participant]

*PL +:Profit -:Loss

<Securities Firm A>

PL	Required IM Amount	Risk Amount Exceeding Collateral
-100	20	-80

[Risk Amount Exceeding Collateral by Corporate Group]

<Group A>

Risk Amount Exceeding Collateral
-118

<Bank A>

Netting Account	Issue X Position Face Value	Required IM Base Amount	Required IM Amount
A-BANK-1	1,600	32	32
A-BANK-2	-500	10	10
A-BANK-3	-300	6	10

Net Position

<Bank A>

Issue X Position Face Value	Required IM Amount
800	52



<Bank A>

PL	Required IM Amount	Risk Amount Exceeding Collateral
-80	52	-28

<Trust A Own Account>

Netting Account	Issue X Position Face Value	Required IM Base Amount	Required IM Amount
A-TB-0	200	4	10

<Trust A Own Account>

Issue X Position Face Value	Required IM Amount
200	10



<Trust A Own Account>

PL	Required IM Amount	Risk Amount Exceeding Collateral
-20	10	-10

*The Required IM Base Amount is set at 2% of the absolute value of position face-value for simplicity sake.

*PL is set at 10% of the position face value in a opposite sign for simplicity sake.

Total Risk Amount Exceeding Collateral

[Risk Amount Exceeding Collateral at Trust Bank]

<Trust Bank A>

Risk Amount Exceeding Collateral
-108

Aggregate risk amount exceeding collateral in own and trust accounts

Trust Accounts held by Trust Banks

[Hypothetical Positions]

*Face Value +: Long -: Short

<Trust Bank A Trust Account>

Netting Account	IMG	Issue X Position Face Value	Required IM Base Amount	Required IM Amount
A-TB-101	A-TB-1	600	12	12
A-TB-102				
A-TB-201	A-TB-2	400	8	10
A-TB-301	A-TB-3	300	6	10
A-TB-401				
A-TB-402	A-TB-4	-1,500	30	30
A-TB-403				



[Risk Amount Exceeding Collateral by IMG]

*PL +:Profit -:Loss

<Trust Bank A Trust Account>

IMG	PL	Required IM Amount	Risk Amount Exceeding Collateral
A-TB-1	-60	12	-48
A-TB-2	-40	10	-30
A-TB-3	-30	10	-20
A-TB-4	150	30	0

Total Risk Amount Exceeding Collateral

[Risk Amount Exceeding Collateral in Trust Accounts]

<Trust Bank A Trust Account>

Risk Amount Exceeding Collateral
-98

*IMG position represents the total of positions in netting accounts for which IMG is designated.

2. Hypothetical Calculation of Required Amount of Clearing Fund

(1) Risk Amount Exceeding Collateral in Stress Tests

	Stress Scenario 1	Stress Scenario 2	Stress Scenario 3	Stress Scenario 4
Group A	-118	0	-20	-20
Group B	-25	0	-30	-20
Securities Firm C	0	-100	-10	0
Bank D	0	-50	0	0
Trust Bank A	-108	-40	-70	0
Trust Bank A Trust Account	-98	-30	-70	0



Extract top 2 Participants in terms of risk amount exceeding collateral
 *About a combination of top 2 Participants, if Group A and Trust Bank A are top 2 Participants, Trust Bank A's own account will be included in positions of both Participants. In this case, refer to risk amount exceeding collateral for Group A and Trust Bank A's trust accounts.

(2) Top 2 Participants in Risk Amount Exceeding Collateral

	Stress Scenario 1	Stress Scenario 2	Stress Scenario 3	Stress Scenario 4
1st	-118	-100	-70	-20
2nd	* -98	-50	-30	-20
Total	-216	-150	-100	-40

Of sum total of risk amount exceeding collateral for the top 2 Participants in each scenario, use the largest value among all

(3) Required Amount of Clearing Fund

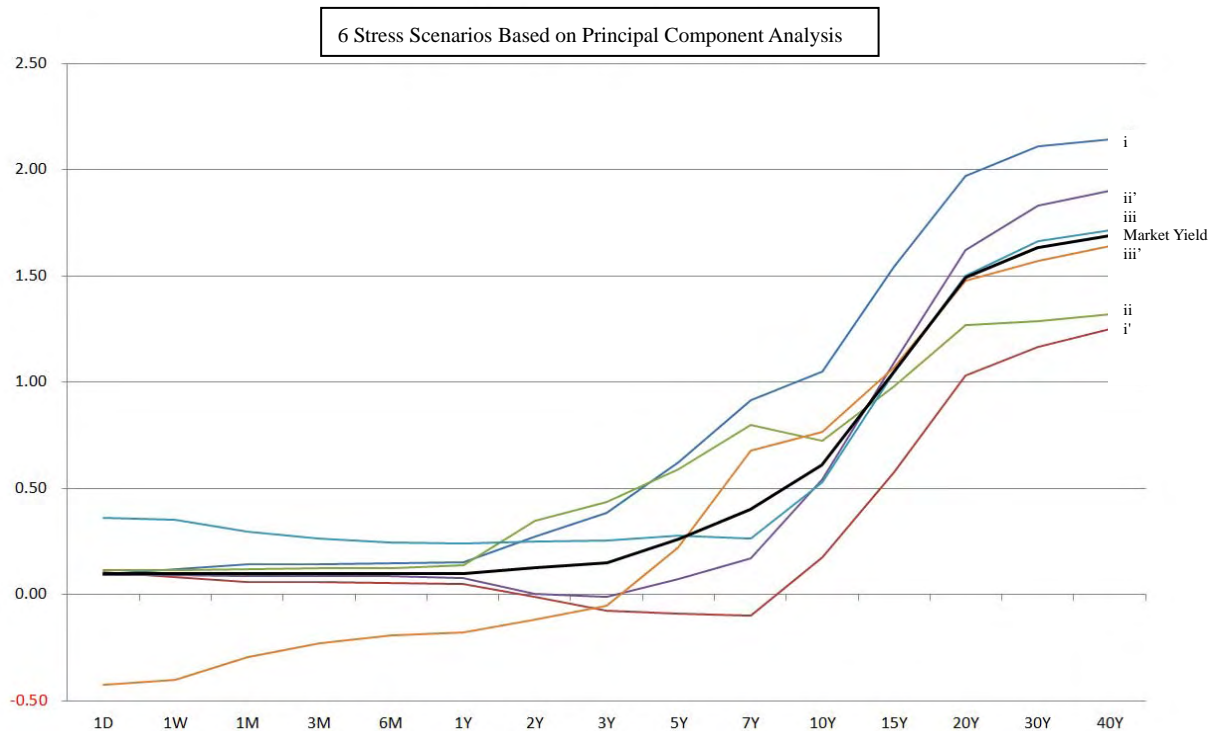
Clearing Participant	Netting Account/IMG	Required IM Base Amount	Percentage of IM	Required Amount of Clearing
Securities Firm A	A-SEC-1	20	8.8%	19
Bank A	A-BANK-1	32	14.0%	30
	A-BANK-2	10	4.4%	9
	A-BANK-3	6	2.6%	6
Securities Firm B	B-SEC-1	23	10.1%	22
Bank B	B-BANK-1	35	15.4%	33
Securities Firm C	C-SEC-1	21	9.2%	20
Bank D	D-BANK-1	20	8.8%	19
	D-BANK-2	1	0.4%	1
Trust Bank A	A-TB-0	4	1.8%	4
	A-TB-1	12	5.3%	11
	A-TB-2	8	3.5%	8
	A-TB-3	6	2.6%	6
Trust Bank A	A-TB-4	30	13.2%	28
	Total	—	228	100.0%

Required amount of Clearing Fund = Total Risk Amount Exceeding Collateral for Top 2 Participants x Percentage of IM
 *Percentage of IM= Required IM Base Amount / Total of Required IM Base Amounts for all Participants

Stress Scenarios for Calculation of Required Amount of Clearing Fund

For calculation of the required amount of Clearing Fund, 12 stress scenarios generated as combinations of six scenarios shown in (1) and two scenarios in (2) below are to be used.

(1) Six stress scenarios based on principal component analysis (applied to Fixed-Rate Coupon JGB and Discount Bills)



*If a negative yield is obtained as a result of the calculation, the yield is set at zero in a stress test.

- Extract the characteristics of yield curve fluctuations from historical data and determine the forms of yield curves that will be used for stress scenarios (Note).
- After having determined the forms of those yield curves, the change in value in each yield curve will be defined using the largest fluctuation range in the past five days for a bond with a remaining maturity with the highest liquidity (7 years).

Note. The characteristics of yield curve fluctuations are extracted using the method of principal component analysis based on the market data.

(2) Two stress scenarios based on market impact (applied to Floating-Rate Coupon JGB)

- Extract the largest change in unit price of Floating-Rate Coupon JGB (Rise / Fall) since JGBCC started clearing services for JGB OTC Transactions in May 2005.
- Extract the largest value of divergence (upward/downward) between the contract price of an offsetting trade and the market price in the wake of the Lehman crisis.
- Combine the changes in unit price and the divergences of contract price outlined above in the manner as shown in the table below and add or subtract them to/from market prices to generate stress scenarios (stress prices).

Stress Scenario	Position (Long/Short)	Largest Change in Unit Price since JGBCC Started Services (Rise/Fall)	Divergence between Contract Price of Offsetting Trade and Market Price (Upward/Downward)
iv: Unit Price Rises	Long *Offsetting trade is "Sell"	Largest Rise (+)	Downward Divergence (-)
	Short *Offsetting trade is "Buy"		Upward Divergence (+)
v: Unit Price Falls	Long *Offsetting trade is "Sell"	Largest Decline (-)	Downward Divergence (-)
	Short *Offsetting trade is "Buy"		Upward Divergence (+)

Examples of Loss Compensation Using “Clearing Fund Requirement Prorating Method” and “Original Transactions Prorating Method”

“Proration according to Required Amount of Clearing Fund”: The allocation of loss compensation to each Participant (the amount of Clearing Fund consumed) is determined by multiplying the total amount to be compensated by the Participant’s Proportion of Clearing Fund *.

“Proration according to Original Transactions”: The allocation of loss compensation to each Participant (the amount of Clearing Fund consumed) is determined by multiplying the total amount to be compensated by the proportion of the Participant’s transactions (Original Transactions) with the defaulter to overall transactions.

* Proportion of Clearing Fund: the proportion of the required amount of Clearing Fund for each Participant to the total required amount of Clearing Fund

I. Calculation of Allocation to each Method (Allocation to each method is calculated based on the proportion of original transactions¹)

Total of losses (a) = 1,000

Unit: JPY 100mil.

Participant	Loss Compensation Method	Required Amount of Clearing Fund	Proportion of Clearing Fund	Amount of Original Transactions	Proportion of Original Transactions	Allocation Percentage b	Loss Amount Allocated a × b
A	Prorated on Clearing Fund	250	10%	800	27%	80%	800
B		250	10%	800	27%		
C		500	20%	800	27%		
D	Prorated on Original Transactions	750	30%	600	20%	20%	200
E		750	30%	0	0%		
Total		2,500	100%	3,000	100%	100%	1,000

- Allocation to Participants subject to Proration on Clearing Fund Requirement (A, B, C)⇒JPY80 bil., which represents 80% of the total amount to be compensated (JPY100 bil.).
- Allocation to Participants subject to Proration on Original Transactions (D, E)⇒JPY20 bil., which represents 20% of the total amount to be compensated (JPY100 billion).

¹ The Proportion of Original Transactions is determined based on the total amount (gross) of obligations JSCC has assumed.

II. Calculation of Amount of Losses Compensated by each Participant (The amount of losses compensated by each Participant is calculated by prorating the amount of losses allocated to each method based on the required amount of Clearing Fund/the amount of Original Transactions)

Prorated on Clearing Fund

Loss Amount Allocated (a) **800**

Participant	Required Amount of Clearing Fund	Proportion of Clearing Fund b	Loss compensation a × b
A	250	25%	200
B	250	25%	200
C	500	50%	400
Total	1,000	100%	800

Prorated on Original Transactions

Loss Amount Allocated (a) **200**

Participant	Amount of Original Transactions	Proportion of Original Transactions b	Amount Allocated a × b
D	600	100%	200
E	0	0%	0
Total	600	100%	200

1. When Total Amount of Losses to Cover is JPY100 bil.

Total of losses (a) = 1,000

Unit: JPY 100mil.

	Clearing Participant	Required Amount of Clearing Fund b	Proportion of Clearing Fund c	Amount of Original Transactions d	Proportion of Original Transactions e	Allocation Percentage f	Loss Compensation Allocation (F)		Rate of Consumption (F/b)		Loss Compensation Allocation Exceeding the Required Amount of Clearing Fund (F - b)	
							Prorated on Clearing Fund f × c	Prorated on Original Transactions f × e	Prorated on Clearing Fund	Prorated on Original Transactions	Prorated on Clearing Fund	Prorated on Original Transactions
Prorated on Clearing Fund	A	250	25%	800		800	200		80%		0	
	B	250	25%	800		800	200		80%		0	
	C	500	50%	800		800	400		80%		0	
Prorated on Original Transactions	D	750		600	100%	200		200		27%		0
	E	750		0	0%	200		0		0%		0
	Total	2,500	100%	3,000	100%	1,000	800	200	80%	13%	0	0

(Clearing Fund Requirement Prorating Method) Rate of consumption is constant

- The consuming rate of Clearing Fund for Participants subject to Proration on Clearing Fund Requirement: 80%
- The consuming rate of Clearing Fund for Participants subject to Proration on Original Transactions (average): 13%
- Participant E had no transaction with the defaulter and does not need to compensate any loss.

2. When Total Amount of Loss to Cover is JPY275 bil.

(The total amount to be compensated exceeds the total amount of Clearing Fund by 10%, or JPY25 billion)

Total of losses (a) = 2,750
Unit: JPY 100mil.

	Clearing Participant	Required Amount of Clearing Fund b	Proportion of Clearing Fund c	Amount of Original Transactions d	Proportion of Original Transactions e	Allocation Percentage f	Loss Compensation Allocation (F)		Rate of Consumption (F/b)		Loss Compensation Allocation Exceeding the Required Amount of Clearing Fund (F - b)	
							Prorated on Clearing Fund f × c	Prorated on Original Transactions f × e	Prorated on Clearing Fund	Prorated on Original Transactions	Prorated on Clearing Fund	Prorated on Original Transactions
Prorated on Clearing Fund	A	250	25%	800		2,200	550		220%		300	
	B	250	25%	800			550		220%		300	
	C	500	50%	800			1,100		220%		600	
Prorated on Original Transactions	D	750		600	100%	550	550	550		73%		0
	E	750		0	0%		0	0		0%		0
	Total	2,500	100%	3,000	100%	2,750	2,200	550	220%	37%	1,200	0

(Clearing Fund Requirement Prorating Method) Rate of Consumption is Constant

(Clearing Fund Requirement Prorating Method) Excess over required amount

- The consuming rate of Clearing Fund for Participants subject to Proration on Clearing Fund Requirement: 220%
- The consuming rate of Clearing Fund for Participants subject to Proration on Original Transactions (average): 37%
- “Loss compensation allocation exceeding the required amount of Clearing Fund” for Clearing Participants subject to Proration on Clearing Fund Requirement shall be covered as described below.

(1) Loss compensation allocation exceeding the required amount of Clearing Fund will be covered by ex-post facto contribution of Special Clearing Charge from Clearing Participants subject to Proration on Clearing Fund Requirement (Fourth tier).

A: Cover shortage of JPY30 bil. by Special Clearing Charge of JPY25 bil. (JPY5 bil. short)

B: Cover shortage of JPY30 bil. by Special Clearing Charge of JPY25bil. (JPY5 bil. short)

C: Cover shortage of JPY60 bil. by Special Clearing Charge of JPY50 bil. (JPY10 bil. short)

(2) Shortfall totaling JPY20 bil. after loss compensation as mentioned in (1) will be covered by an unused portion of Clearing Fund of Clearing Participants subject to Proration on Original Transactions (Fifth tier: see Annex 4).

E: Cover the shortfall of JPY20 bil. by an unused portion of Clearing Fund (JPY75 bil.).

*D will not cover this shortage. For priorities in the fifth or lower tiers, financial resources of the Participant with lower rate of consumption will be used until Es’ Clearing Fund consumption rate reaches the same rate as D. Since 73% of D’s contribution, or JPY55 bil., has already been spent, E should compensate losses, prior to D, until 73% of its contribution is used.

⇒In this example, financial resources up to fifth tier are used to cover the total losses of JPY275 bil.

⇒If such resources are not enough to cover the overall losses, cover them by Special Clearing Charge (ex-post facto contribution) from Clearing Participants subject to Proration on Original Transactions.

Methods of Loss Compensation by Prorating Method

1. Financial Resources for Loss Compensation

Order	Clearing Participants subject to Proration on Clearing Fund Requirement	Clearing Participants subject to Proration on Original Transactions (Trust Accounts of Trust Banks) ¹
First tier	Compensate with financial resources contributed by defaulters in advance (Margin, Clearing Fund, etc.)	Same as left
Second tier	Compensate with JSCC's own financial resources	Same as left
Third tier	<ul style="list-style-type: none"> ▪ [Prior contributions] Clearing Fund ▪ Compensate with JSCC's own financial resources 	<ul style="list-style-type: none"> ▪ [Prior contributions] Clearing Fund (Can be used <u>only to cover losses allocated to Original Transactions Prorating Method</u>) ▪ Compensate with JSCC's own financial resources
Fourth tier	[Ex-post facto contributions] Special Clearing Charge (with cap ²)	[Ex-post facto contributions] Special Clearing Charge (Can be used <u>only to cover losses allocated to Original Transactions Prorating Method</u> . No cap on consumed amount.)
Fifth tier	—	<ul style="list-style-type: none"> ▪ [Prior contributions] Unused portion of third tier Clearing Fund ▪ Compensate with JSCC's own financial resources
Sixth tier	—	[Ex-post facto contributions] Unused portion of fourth tier Special Clearing Charge
Seventh tier	Special Clearing Charge from recipient Clearing Participants of Variation Margin, etc.	Same as left

Losses in excess of fourth tier Special Clearing Charge of Clearing Participants subject to Proration on Clearing Fund Requirement should be covered by unused portion of Clearing Fund and Special Clearing Charge of Clearing Participants subject to Proration on Original Transactions.

➤ Clearing Participants subject to Proration on Original Transactions also bear obligation to contribute Clearing Fund in advance in the same manner as

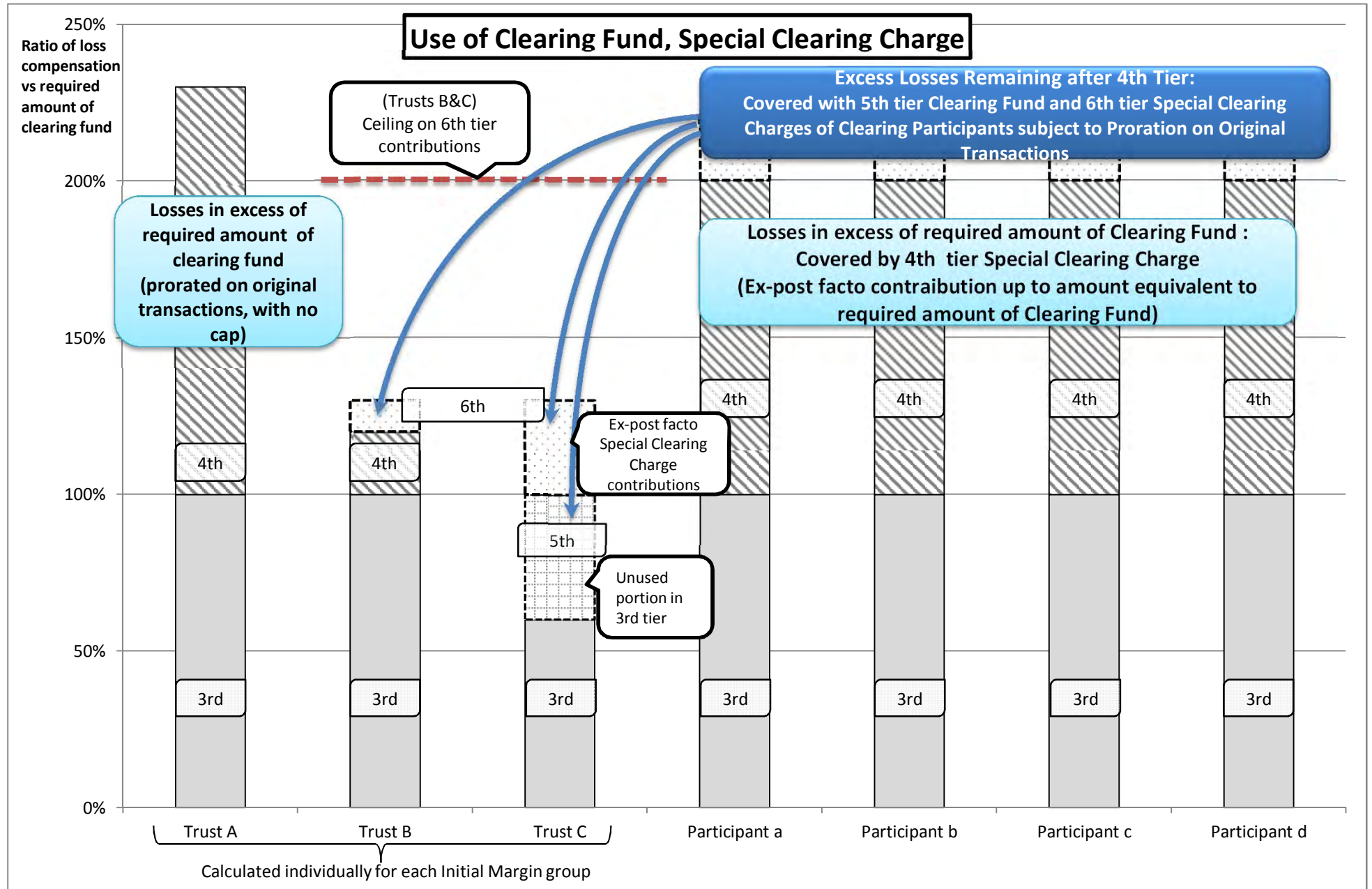
¹ Trust banks' own account shall be subject to Clearing Fund Requirement Prorating Method.

² This should be the same amount as the required amount of Clearing Fund.

Clearing Participants subject to Proration on Clearing Fund Requirement (Third tier).

- A ceiling is set on Special Clearing Charge contributions for sixth tier covered by Clearing Participants subject to Proration on Original Transactions (the same amount as the required amount of Clearing Fund).
- If losses from a default cannot be covered by Seventh tier financial resources, a market value-based close-out netting (tear-up) process will be performed for all unsettled positions.

2. Loss Compensation Method (Illustration)

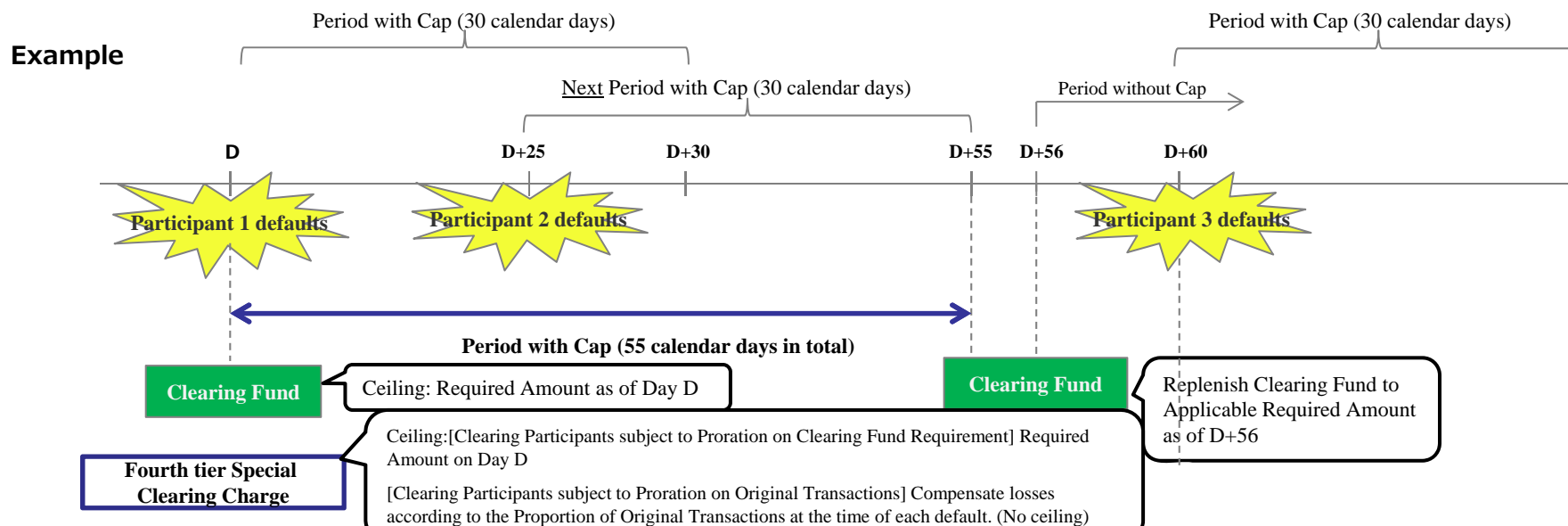


Handling of Loss Compensation by Non-defaulters during Period with Cap

- Period with Cap: a 30-day period starting from a default of a Clearing Participant
(If a second default occurs during a Period with Cap, it is extended to end on the date that is 30 days after the second default.)

[Loss Compensation during Period with Cap]

	Clearing Participants subject to Proration on Clearing Fund Requirement	Clearing Participants subject to Proration on Original Transactions
(Third tier) Clearing Fund	Compensate losses from defaults occurring during a Period with Cap, up to the amount equal to the required amount of Clearing Fund for each non-defaulter at the time of the first default	
(Third tier) Replenish Required Amount of Clearing Fund	At the end of the Period with Cap, the deposited amount to be replenished to the required amount of Clearing Fund as of such time.	
(Fourth tier) Special Clearing Charge	As to defaults occurring during the Period with Cap, compensate losses up to the amount equal to the required amount of Clearing Fund for each non-defaulter at the time of occurrence of the first default.	Compensate losses according to the Proportion of Original Transactions at each time of occurrence of a default (regardless of a Period with Cap)
Default Contingent Margin	During the Period with Cap, the amount equal to the increase in the required amount of Clearing Fund from the previous day calculated daily needs to be deposited separately as Default Contingent Margin (see Annex 11).	



Loss Compensation by Recipient Clearing Participants of Variation Margin, etc. (VM Haircut)

1. Key Points of Loss Compensation by Recipient Clearing Participants of Variation Margin, etc. (VM Haircut)

- If losses from a default of a Clearing Participant exceed the First to Sixth tiers loss compensation financial resources, such losses shall be covered by contributions from recipient Clearing Participants of Variation Margin, etc. (VM Haircut).
- Details of Variation Margin, etc. subject to VM Haircut and loss compensation methods are described in the table below.

	Details of Variation Margin, etc.	Participants to Cover Losses and Loss Compensation Methods
(i)	For all transactions with all Clearing Participants(*1), amount paid/received by each Clearing Participant from the date of default of a Clearing Participant to the day (*2) when losses are determined in default management processes.	<p>[Participants to Cover Losses] Those who have become recipients of the net amount of cumulative amount in (i) and cumulative amount in (ii) during the period mentioned in the left.</p> <p>[Methods of Loss Compensation] Compensate losses in proportion to the net receivable of each Participant.</p>
(ii)	(When the defaulter is a recipient of JGBs (DVP2)) For transactions with respect to which JSCC performed settlement by funding required funds, an amount equal to change in market value (*3) of <u>JGB that has already been delivered by JGB Deliverer (DVP1) to JSCC</u> from the date of default related to relevant JGB to the day when losses are determined in default management processes.	

*1 Such transactions include trades with non-defaulters, those on which settlements are completed between the date of default and the day when losses are determined in default management processes, and trades in relation to which settlement failure occurred.

*2 The date of a second-stage auction if losses are determined in the second-stage auction. If losses are determined in the tear-up process, it should be the business day immediately following the conclusion of tear-up (because Variation Margin for the day of tear-up is paid/received on the following business day).

*3 The amount representing changes in a market value, as described in (ii), is added to the amount described in (i) for each of the Participants for which JSCC has performed settlements by funding necessary amount, including Participants that have had no transaction with the defaulter. Such an amount is added in proportion to each settlement amount for such Participants (JGB Deliverers to JSCC).

- Even if requested to compensate losses by way of VM Haircut, Variation Margin, etc. shall still be settled as usual. Relevant Clearing Participants are required to separately contribute the amount equal to such compensation as Special Clearing Charge.

2. Examples of Loss Compensation by Recipient Clearing Participants of Variation Margin, etc. (VM Haircut)

(1) When a defaulter is a deliverer of JGB

- A Participant who is a deliverer of the issue X subject to clearing defaults on D+0 (Assume that X is the sole unsettled issue for the sake of simplicity).
- Clearing Fund Requirement Prorating Method to apply to Clearing Participants (the same shall apply in the next example).
- Profits and losses to be calculated based on the face value of JGB (The present value of cash at the time of tear-up is not considered. The same shall apply in the next example).
- Neither first-stage auction for a basket containing the issue X nor second-stage auction has been successful.
- Failing to reach consensus in the consultation, tear-up is to be performed on transactions that remain unsettled after settlements on D+3.

[Unsettled balance] Balance of trades for which the settlement has not become due at the end of the business day

(+: Participant is JGB recipient - : Participant is JGB deliverer)

Unit: JPY100 mil.

	DVP1 JGB Deliverer		DVP2 JGB Recipient		
	Defaulter	Survivor	Defaulter	Survivor	
D-1	-500	-100	0	600	
D+0	-500	-300	0	800	◀ Default occurs
D+1	-500	-100	0	600	
D+2	-500	-50	0	550	◀ Hold 2nd-stage auction
D+3	-500	-50	0	550	◀ Tear-up

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[VM, etc. when 2nd-stage auction fails] VM, etc. only represents the total of Variation Margin and delivery adjustment amount for the sake of simplicity.

Unit: JPY100 mil

	VM, etc. Settlement Day	Market Value of VM (Market Value on previous day)	Market Value for Tear-up	DVP1 JGB Deliverer		DVP2 JGB Recipient	
				Defaulter	Survivor	Defaulter	Survivor
	D-1	99.00					
	D+0	90.00		45	9	0	-54
	D+1	90.00		0	0	0	0
	D+2	105.00		-75	-15	0	90
Financial resources for VM Haircut at 2nd-stage auction	Cumulative Total of VM, etc. (D+0 to D+2)			-30	-6	0	36
	D+3	105.00	120.00	0	0	0	0
Financial resources for VM Haircut at tear-up	Cumulative Total of VM, etc. (D+0 to Tear-up)			-105	-13.5	0	118.5

Market value for tear-up soars, pushing up losses from default

Cumulative total of net payable of VM by defaulter: -JPY10.5 bil.

Cumulative total of net receivable of VM: JPY11.85 bil.

(2) When defaulter is recipient of JGB

- A Participant who is a recipient of the issue Y subject to clearing defaults on D+0 (Assume that Y is the sole unsettled issue for simplicity sake).
- JSCC raises funds on the date of default (D+0) and performs settlements.
- Neither first-stage auction for a basket containing the issue Y nor second-stage auction has been successful.
- Failing to reach consensus in the consultation, tear-up is to be performed on transactions that remain unsettled after settlements on D+3.

[Unsettled balance] Balance of trades for which the settlement has not been due at the end of the business day

(+: Participant is JGB recipient - : Participant is JGB deliverer)

Unit: JPY100 mil.

	DVP1 JGB Deliverer			DVP2 JGB Recipient		
	Defaulter	Survivor	Fund Provider	Defaulter	Survivor	JSCC
D-1	0	-105		100	5	
D+0	0	-100	-100	0	100	100
D+1	0	-100	-100	0	100	100
D+2	0	-100	-100	0	100	100
D+3	0	-100	-100	0	100	100

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← Raise funds and perform settlement

← Hold 2nd-stage auction

← Tear-up

[VM, etc. when 2nd-stage auction fails] VM, etc. represents the total of Variation Margin and delivery adjustment amount for simplicity sake. Unit: JPY100 mil.

VM, etc. Settlement Day	Market Value of VM (Market Value on previous day)	Market Value for Tear-up	DVP1 JGB Deliverer			DVP2 JGB Recipient		
			Defaulter	Survivor	Fund Provider	Defaulter	Survivor	JSCC
D-1	110.00							
D+0	110.00		0	0		0	0	
D+1	110.00		0	0	0	0	0	0
D+2	105.00		0	5	5	0	-5	-5
Cumulative Total of VM, etc. (D+0 to D+2)			0	5	5	0	-5	-5
D+3	110.00	92.00	0	-5	-5	0	5	5
Cumulative Total of VM, etc. (D+0 to Tear-up)			0	18	18	0	-18	-18

← Market value for tear-up falls sharply, pushing up losses from default

Deposit of VM is not required for trades settled after the default date through JSCC's funding, but such funded participants shall cover the amount equal to the change in market value related to such trades up to the date of tear-up (surviving Participant of DVP1).

Cumulative receivables of VM: JPY3.6 bil.
(cumulative total of changes in market value at fund providers: JPY1.8 bil.)

Net payable of VM for defaulter (JSCC incurs): - JPY1.8 bil.

Deposit of Default Contingent Margin during Period with Cap

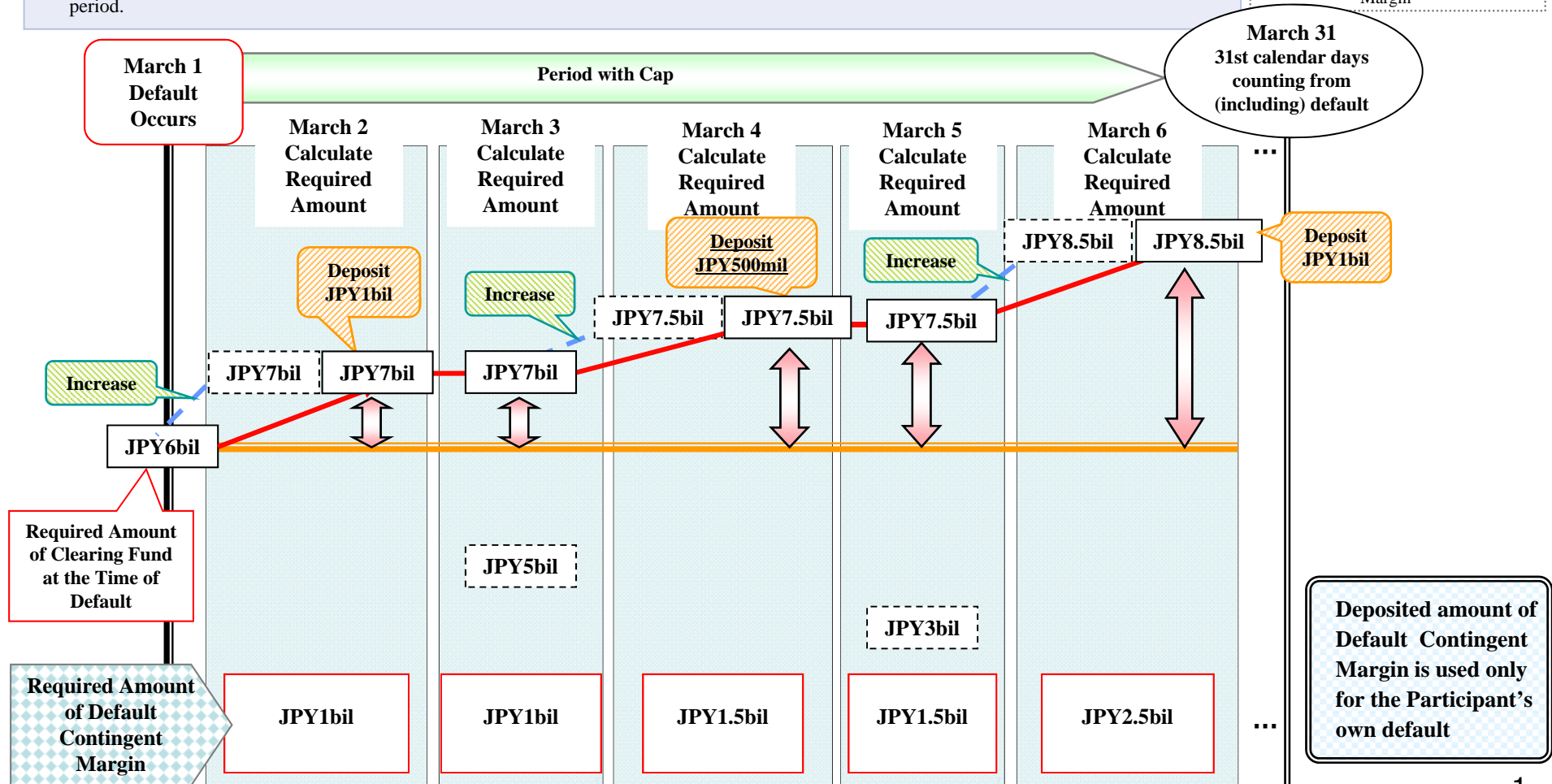
- Re-calculate the required amount of Clearing Fund on a daily basis
 Note: The required amount re-calculated daily is referred to as “Calculated Required Amount,” and the required amount applied on the day as “Applicable Required Amount.”
- The Calculated Required Amount **increases** from the previous day’s Applicable Required Amount⇒Use the Calculated Required Amount as the Applicable Required Amount for the day. Deposit the amount equal to such increase **as “Default Contingent Margin” on the following day.**
- The Calculated Required Amount decreases from the previous day’s Applicable Required Amount
 ⇒The previous day’s Applicable Required Amount shall apply as the day’s Applicable Required Amount (withdrawal of Default Contingent Margin not permitted).
- Collateral Type of Default Contingent Margin additionally deposited during the Period with Cap is changed to Clearing Fund at the end of such period.

(Legend)

JPY x mil : Applicable Required Amount

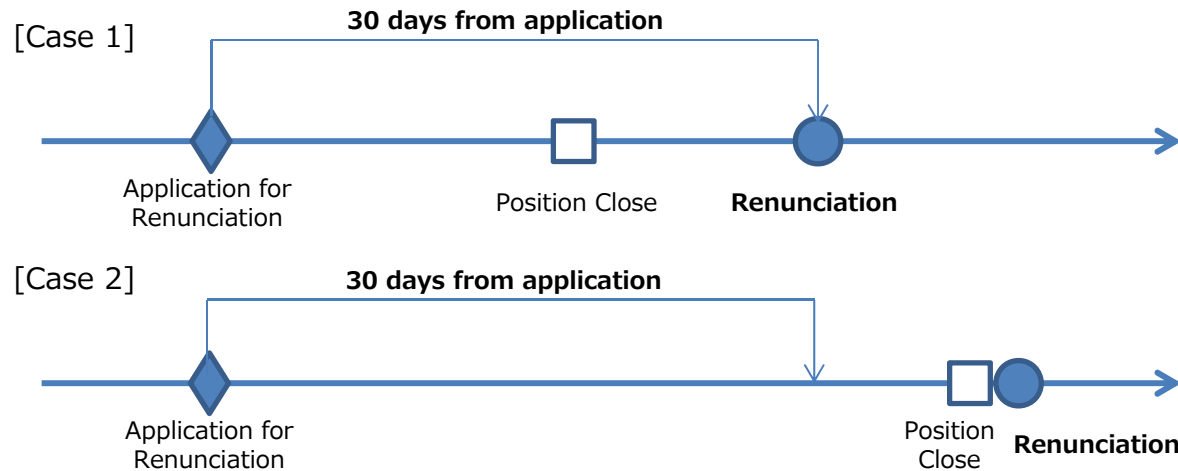
JPY x mil : Calculated Required Amount

↕ : Required Amount of Default Contingent Margin



Timing Renunciation of Clearing Qualification Becomes Effective

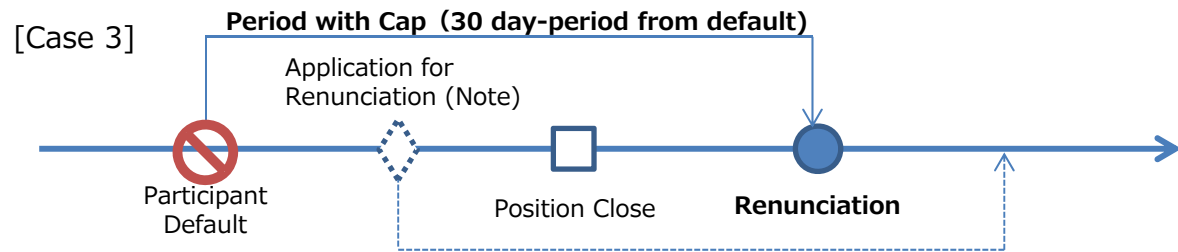
1. When Default of Clearing Participant does not Occur



Renunciation of Clearing Qualification shall take effect 30 days after the day of application or at the close of Clearing Participant's position, whichever later.

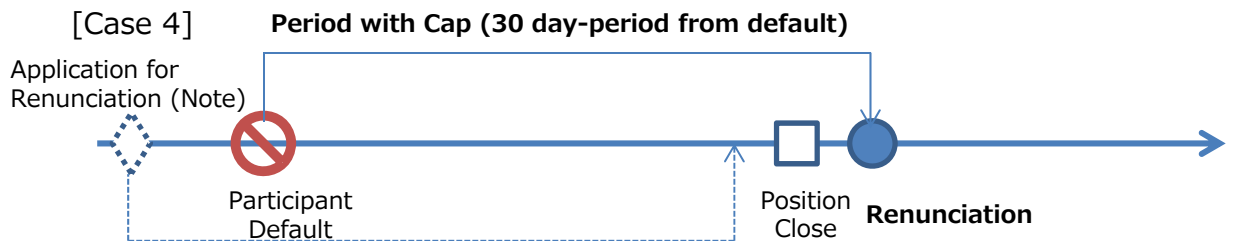
2. When Default of Clearing Participant Occurs

(When the application for renunciation of Clearing Qualification is made during the Period with Cap or a default occurs before the day on which 30 calendar days have elapsed since the application or before the close of Clearing Participant's position, whichever later)



Effective Date of Renunciation at the Normal Case

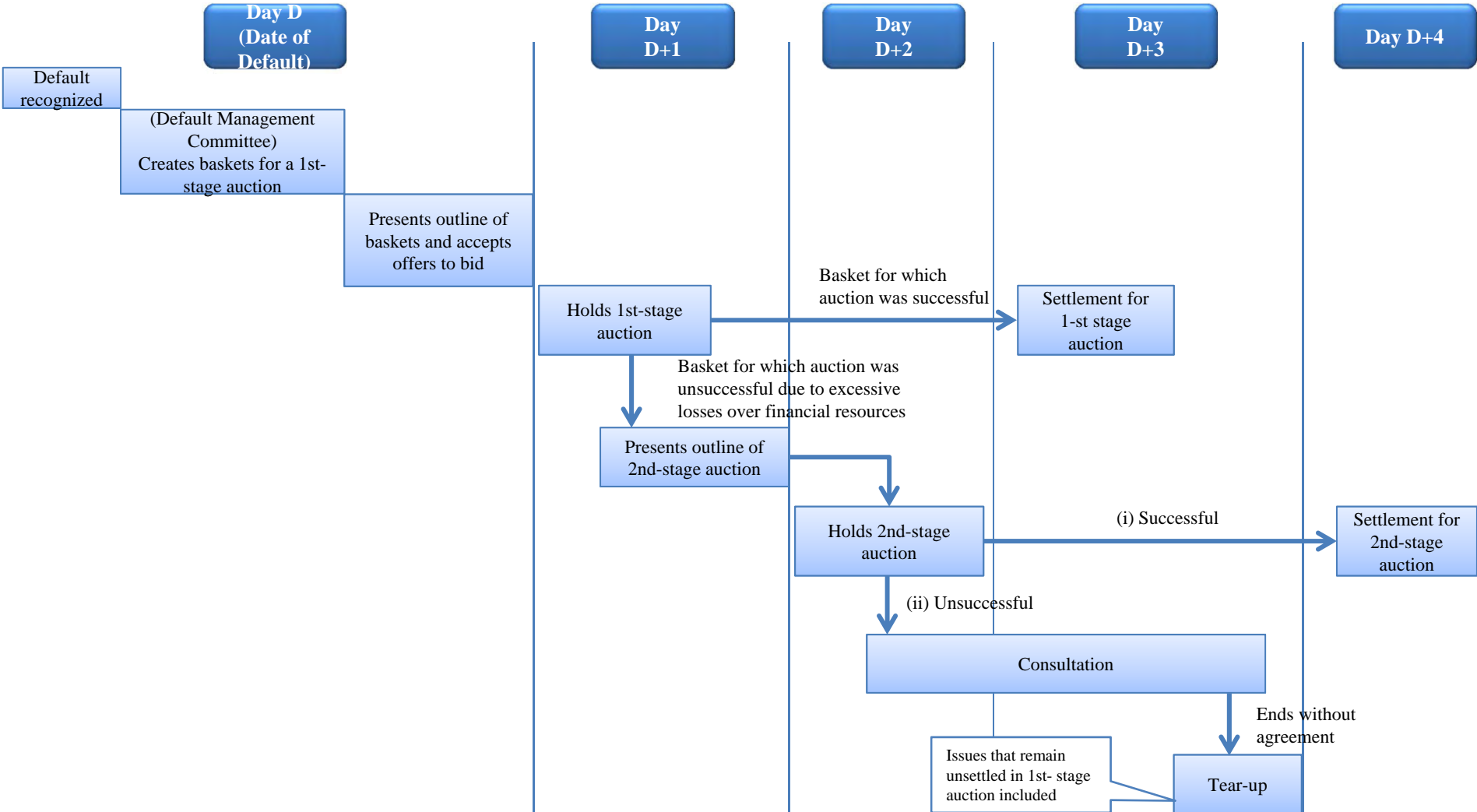
- Renunciation of Clearing Qualification shall take effect at later of the end of Period with Cap or position close (including settlement through auction) (Note)
- Need to compensate loses related to default occurred before renunciation.



(Note) When a default of a Clearing Participant occurs, the timing of application for renunciation has nothing to do with the renunciation timing.

Example of Typical Default Management Schedule

- ✓ Hold a first-stage auction on the next business day of the Default Determination Date.
- ✓ If the first-stage auction is unsuccessful, hold a second-stage auction on the next business day of the first-stage auction.
- ✓ If the second-stage auction is unsuccessful, hold a consultation by the next business day of the second-stage auction.
- ✓ If the consultation ends without agreement, implement the tear-up process.



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