

Revision of Clearing Fund Structure for Cash Equities, etc.

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Japan Securities Clearing Corporation

I. Purpose

Under JSCC's current clearing structure for Securities and Similar Contracts Clearing Business, the risk management framework is structured in such manner that if loss arises as a result of a default of a Securities Clearing Participant, such loss shall be compensated with clearing fund related to cash equities, etc.¹ deposited by the defaulting Clearing Participant, in the first place, and, if there is any shortage, such losses are compensated by the loss compensation contribution from the designated market operator, JSCC's Securities and Similar Contracts Settlement Guarantee Reserve and the special clearing charge contribution from Clearing Participants other than the defaulting Clearing Participant.

With respect to such risk management framework for the Securities and Similar Contracts Clearing Business related to cash equities, etc., JSCC will conduct necessary revisions, such as the revision of calculation method, etc. for initial margin² and the introduction of a clearing fund³ structure as a pre-funded financial resources to cover losses from defaults of Clearing Participants in extreme but plausible market conditions, to further refine such framework in light of the international regulatory environments, such as the CPSS⁴-IOSCO Principles for Financial Market Infrastructures, etc. and thereby enhance JSCC's international competitiveness.

II. Overview

Item	Content	Remarks
1. Initial Margin related to Cash Equities, etc.		

¹ Under current JSCC framework, the clearing fund related to cash equities, etc. is positioned as so-called self-responsibility collateral (i.e., collateral requirement of which is calculated based on the exposure of open interests of the Clearing Participant itself, which is equivalent to clearing margin and initial margin for other products). However, in association with these revisions, the self-responsibility collateral is to be defined as "Initial Margin," and collateral required to be posted by Clearing Participants as pre-funded mutualized financial resources to cover loss expected to arise upon default of a Clearing Participant under extreme but plausible market conditions is to be defined as "Clearing Fund." (When used herein, the terms "Initial Margin" and "Clearing Fund" shall be construed as per the definitions in this footnote.)

² See Footnote 1.

³ See Footnote 1.

⁴ Name as of publication of FMI Principles. Currently known as "CPMI (Committee on Payments and Market Infrastructures)."

<p>(1) Purpose</p>	<ul style="list-style-type: none"> • For the purpose of recovering losses expected to arise due to price fluctuations of the issues comprising unsettled portfolio up to the liquidation of unsettled portfolio of the defaulting Clearing Participant upon default of a Securities Clearing Participant, the Initial Margin structure with a feature of a self-responsibility collateral will be newly established. 	<ul style="list-style-type: none"> • Positioning of the clearing fund which is the current self-responsibility collateral will be changed to mutualized collateral as outlined in Item #2. below
<p>(2) Initial Margin Calculation Method</p>	<ul style="list-style-type: none"> • Initial Margin requirement for each Securities Clearing Participant shall be obtained by following formula: Initial Margin Requirement = Total Amount Corresponding to Mark-to-Market Losses + Total Amount Corresponding to Potential Losses • Total Amount Corresponding to Mark-to-Market Losses means the valuation loss or gain obtained by a revaluation of unsettled portfolio in cash equities, etc. of each Securities Clearing Participant as of the close of business on 	<ul style="list-style-type: none"> • JSCC shall perform calculations and give notices regarding the Initial Margin requirement. • There shall be no minimum requirement for Initial Margin. • If the value obtained as a result of the calculation on the left is negative (which means gain), the Initial Margin requirement shall be zero. • The requirements shall be calculated based on aggregate unsettled portfolio for the Clearing Participant's house and customer (brokerage). • DB Base Price for Bank of Japan investment securities.

<p>(3) Deposit of Initial Margin</p>	<p>each business day using the closing price of each issue on the relevant day (i.e., DVP Clearing Price for the next business day).</p> <ul style="list-style-type: none"> • Total Amount Corresponding to Potential Losses means the amount that will cover 99% of profit or loss calculated by varying the current day's closing price of each issue (i.e., DVP Clearing Price for the next business day) using scenarios generated from combinations of price movement for each Securities Clearing Participant's unsettled portfolio in cash equities, etc. at the close of each business day over the 1 day (Time Horizon) in the past 250 days (reference period). • For specific issues designated by JSCC, the Amount Corresponding to Potential Losses will be separately obtained as the product of the contract price of unsettled contract and a certain percentage set for each issue. <ul style="list-style-type: none"> • In cases of shortfall in Initial Margin deposit, the additional deposit shall be made by 2:00 p.m. on the next business day following the shortfall has occurred (the calculation date). • Besides Japanese yen cash, Initial Margin can be deposited by securities in lieu of cash. 	<ul style="list-style-type: none"> • For issues, such as newly listed issues, for which acquisition of price fluctuation ratio for past 250 business days is difficult, JSCC is allowed to apply price fluctuation ratio prescribed by JSCC. • The amount to cover 99% of the profit or loss shall be obtained by multiplying a multiplier to the amount to cover levels of top 5% of the loss amounts, and the specific level of such multiplier shall be prescribed by JSCC. Also, its appropriateness shall be validated through regular monitoring of risk management framework, and it may be revised on an ad hoc basis. • Scope of securities in lieu of cash and treatment of haircut shall be the same as those for current Clearing Deposit.
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<p>(4) Charging Additional Initial Margin according to Risk Amount</p>	<ul style="list-style-type: none"> • JSCC will charge additional Initial Margin according to the risk size of open interests of each Securities Clearing Participant. • The additional Initial Margin will be charged when an expected loss upon a default of the relevant Securities Clearing Participant under stressed conditions cannot be covered by: <ul style="list-style-type: none"> - the sum total of the Initial Margin requirement for the relevant Securities Clearing Participant mentioned in (1); and - half of the total risk amount of the two participants whose risk amounts exceeding collateral are the largest and the second largest, which is used to calculate the Clearing Fund requirement as described in Item #2. (2) below, and the amount of such additional charge shall equal to such uncovered loss amount. • Triggering of additional Initial Margin call shall be judged based on the conditions as of the closing of morning session and the closing of the business day of the cash market on each day. The amount equivalent to the additional charge shall be deposited by 4:00 p.m. on the same day, if additional charge is triggered as a result of judgment made based on the conditions as of the close of the morning session, and by 2:00 p.m. on the next business day, if additional charge is triggered as a result of judgment made based on the conditions as of the close of a business day. 	
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<p>(5) Intraday Deposit of Initial Margin</p>	<ul style="list-style-type: none"> • In the case designated by JSCC as the case where the market of the cash equities, etc. moved significantly during intraday trading session, JSCC will calculate the Initial Margin requirement in a similar manner as outlined in (1) above according to the conditions as of the close of the morning session. • If there is any shortfall in Initial Margin deposit as a result of above calculation, the Clearing Participant shall deposit sufficient fund by 4:00 p.m. on the same day. 	<ul style="list-style-type: none"> • The criteria for triggering the measures on the left shall be the same as trigger criteria for the intraday deposit scheme of the existing clearing funds for cash equities, etc. • However, a Clearing Participant is not required to make additional deposit if the additional requirement is less than JPY30 million.
<p>2. Clearing Fund related to Cash Equities, etc.⁵ (1) Purpose</p> <p>(2) Calculation Method of Securities Clearing Fund Requirement</p>	<ul style="list-style-type: none"> • With regard to unsettled portfolio related to cash equities, etc., a structure of clearing fund (hereinafter “Securities Clearing Fund”) is changed into a mutualized collateral, in order to secure risks that are not covered by Initial Margin deposited by Securities Clearing Participants. • The required amount of Securities Clearing Fund shall be an amount sufficient to cover losses that exceeds the Initial Margin deposited by the defaulting Clearing Participants in the event of defaults of multiple 	<ul style="list-style-type: none"> • JSCC shall perform calculations and give notices regarding the required amount of Securities Clearing Fund.

⁵ See Footnote 1.

	<p>Securities Clearing Participants in extreme but plausible market conditions (under stressed conditions).</p> <ul style="list-style-type: none"> The Securities Clearing Fund requirement for each Securities Clearing Participant shall be obtained through following formula: Securities Clearing Fund Requirement = Aggregate Securities Clearing Fund Requirements × (Initial Margin Requirement for each Securities Clearing Participant ÷ Aggregate Initial Margin Requirements for all Securities Clearing Participants) The aggregate Securities Clearing Fund requirements shall be the sum of the largest and the second largest Risk Amounts Exceeding Collateral (defined below) of Clearing Participants (on a consolidated basis). “Risk Amount Exceeding Collateral” means the expected loss(*) upon default of a Securities Clearing Participant under stressed conditions exceeding the Required Initial Margin Amount. (*) The expected loss upon default of a Securities Clearing Participant under stressed conditions shall be obtained by an application of risk calculation methodologies in light of various issue compositions in cash equities, etc. The Securities Clearing Fund requirement shall be reviewed monthly, and each month end shall be the base date for the calculation of the requirement. The requirement so obtained shall apply from the fifth 	<ul style="list-style-type: none"> Minimum requirements for each Securities Clearing Participant shall be JPY 10 million. In the calculation of the requirement, unsettled portfolio of Clearing Participant’s house and customer (brokerage) shall be aggregated. The total amount of the risk exceeding collateral to be used for the calculation of aggregate Securities Clearing Fund requirements shall be the average of the sum total of daily risk amount exceeding collateral for past 120 business days. Specifically, it will be calculated by using t-Copula model.
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<p>(3) Deposit of Clearing Fund</p> <p>3. Loss Compensation Scheme Arising from Settlement Default related to Securities Clearing Qualification</p>	<p>business day of the next month.</p> <ul style="list-style-type: none"> • In cases of shortfall in Securities Clearing Fund deposit, the additional deposit shall be made by 2:00 p.m. on the next business day following the shortfall has occurred (the calculation date). • Besides Japanese yen cash, Clearing Fund can be deposited by securities in lieu of cash. • Losses arising from unsettled portfolio in cash equities, etc. as a result of a default of Securities Clearing Participant shall be covered in the following order: <ul style="list-style-type: none"> (First Tier) Collateral of Defaulting Clearing Participant (Initial Margin, Securities Clearing Fund, etc.) (Second Tier) Loss Compensation by Designated Market Operator (Third Tier) JSCC's Securities and Similar Contracts Settlement Guarantee Reserve (Fourth Tier) Securities Clearing Fund of Securities Clearing Participants other than Defaulting Clearing Participant (* Newly introduced by these revisions) (Fifth Tier) Special Clearing Charge 	<ul style="list-style-type: none"> • Scope of securities in lieu of cash and treatment of haircut shall be the same as those for current Clearing Deposit. • The amount to be borne by each Securities Clearing Participant in Fourth Tier shall be determined on a pro-rata basis according to the Securities Clearing Fund requirement
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<p>4. Change of Positioning of Collateral for Settlement by Physical Delivery and Payment in JGB Futures Contracts</p>	<ul style="list-style-type: none"> • In the settlement by physical delivery and payment of JGB Futures contracts, the collateral required to be posted by each JGB Futures Clearing Participant to cover risk of the final positions (Base Amount of Clearing Fund for Settlement by Physical Delivery and Payment) shall be positioned as the initial margin for JGB Futures Clearing Participants and excluded from clearing fund having nature of mutualized financial resources. 	<p>of each Securities Clearing Participant.</p> <ul style="list-style-type: none"> • For standardization of collateral on the left in association with the establishment of Initial Margin structure positioned as a self-responsibility collateral for cash equities, etc. • For the calculation of requirements, the calculation method applied to existing Base Amount of Clearing Fund for Settlement by Physical Delivery and Payment shall apply.
<p>5. Implementation Date</p>	<ul style="list-style-type: none"> • These revisions are aimed to be implemented in January 2016. 	

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