Outlines related to Introduction of Customer Buffer Framework etc. in Interest Rate Swap Clearing Service

October 26, 2020
Japan Securities Clearing Corporation

I. Purpose

In JSCC's Interest Rate Swap (IRS) Clearing Service, JSCC will make necessary arrangements to introduce various frameworks, including a framework of pre-posting of collaterals by Clearing Brokers (hereinafter referred to as "Customer Buffer") to reduce a number of rejections of Clearing by allocating such collateral in case of shortage in Customer's deposited margin, for further promotion of utilizations mainly by Clients and for the enhancement of convenience of JSCC's clearing services.

II. Outlines

Item	Description	Remarks
1. Introduction of Customer Buffer Framework		・ See Annex 1 for a conceptual diagram of Customer Buffer framework.
(1) Utilization of Customer Buffer Framework	・ Any Clearing Broker desires utilization may utilize the Customer Buffer framework.	・ By setting a Customer Buffer allocation cap by Customer on the IRS Clearing System (See (2) Remarks column), any Clearing Broker may utilize the Customer Buffer Framework.
(2) Allocation of Customer Buffer	・ A Clearing Broker (only those using the Customer Buffer framework; the same applies in this Section) shall deposit Initial Margin with JSCC in advance as Customer Buffer. ・ When a Customer (either Affiliate or Client) applies for Clearing, if	・ The Initial Margin to be deposited as Customer Buffer is positioned as Clearing Broker's Initial Margin (see (3) Remarks column). However, a Clearing Broker may not allocate the collateral posted as Customer Buffer to any

Item	Description	Remarks
	its deposited margin is insufficient to cover the Margin Required to Clear related to the Customer's Cleared Contracts, the collateral posted as Customer Buffer shall be automatically allocated to the relevant Customer account and the shortfall in the Margin Required to Clear is resolved.	shortfall in Initial Margin or the Margin Required to Clearing for its proprietary trading. ・ Customer Buffer will be allocated in the order of arrival of the application for Clearing at JSCC. Moreover, a Clearing Broker may set a cap for each Customer on the amount of Customer Buffer to be allocated. ・ A Clearing Broker may not request a withdrawal of the portion of Customer Buffer allocated to a Customer account.
(3) Margin Eligible for Allocation of Customer Buffer	・Customer Buffer may be allocated to the Margin Required to Clear.	・ When, as a result of a calculation of Initial Margin requirement or Intraday Margin requirement, Customer's deposited margin is found out to be short, no allocation of Customer Buffer will take place. However, for the purpose of calculation of excess / deficit in Customer's posted collateral using the Intraday Margin and Initial Margin requirement calculated based on the Cleared Contracts as of 4:00 p.m., the amount of Customer Buffer allocated at the time of the Clearing just before such calculation shall be taken into account as collateral balance (See Annex 2). ・ For the purpose of calculation of excess / deficit in

Item	Description	Remarks
		Customer's posted collaterals using the Initial Margin requirement calculated based on the Cleared Contracts as of 7:00 p.m., Customer Buffer allocated at the time of the Clearing just before such calculation shall be returned to the Clearing Broker. However, until the Customer received Customer Buffer allocation as of 7:00 p.m. resolves Initial Margin shortfall on the next business day, the Clearing Broker may not request a withdrawal of the Customer Buffer amount so allocated to the Customer. (See Annex 2) ・ The Customer with a shortfall in the calculation of Initial Margin excess / deficit based on the Cleared Contracts as of 7:00 p.m. on the previous business day may not receive an allocation of Customer Buffer for its Margin Required to Clear until such shortfall is resolved (See Annex 2). ・ In the calculation of the Margin Required to Clear related to Position Transfer, Member-Initiated Compression and JSCC-Initiated Compression and the calculation of Intraday Margin related to Vendor-Initiated Compression, Customer Buffer allocated just before that timing is considered as collateral balance.

Item	Description	Remarks
(4) Eligible Assets for Customer Buffer and Management	・Customer Buffer may be deposited in Japanese yen cash. ・The assets deposited as Customer Buffer shall be managed as money trust at a trust bank or in the current account of the Bank of Japan.	・ Deposit of securities in lieu of cash is not allowed. ・ A certain cap shall be set for the cash held at the Bank of Japan.
(5) Treatment upon Default of Clearing Broker or Customer	・Upon Clearing Broker default, Customer Buffer deposited by the relevant Clearing Broker shall be used for the loss recovery related to the Cleared Contracts of the relevant Participant (House and all Customers) irrespective of whether or not the Customer Buffer is allocated to Customer accounts. ・Upon Customer default (excluding the time of a default of its Clearing Broker), Customer Buffer will not be used for recovery of loss arising from the Cleared Contract subject to Brokerage even if it is allocated to the account of the defaulted Customer.	・ Even if Customer Buffer is allocated to a Customer account upon Clearing Broker default, use of the collateral is not limited to the recovery of loss arising from the Cleared Contracts of the Customer received such allocation. ・ Customer Buffer shall be positioned as Initial margin of the Clearing Broker, and the right to claim return shall be vested to the Clearing Broker. However, when it is used in the default settlement process upon Clearing Broker default, the amount so used shall be deducted from the right to claim return.
2. Introduction of Client Additional Margin		

Item	Description	Remarks
Framework		
(1) Framework Outlines	・To contribute to the diversification of customer risk management by Clearing Brokers, JSCC introduces a framework of Initial Margin requirement add-on (hereinafter referred to as "Client Additional Margin") based on prior agreement between a Clearing Broker and a Customer (only a Customer that is not in the same corporate group as the Clearing Broker; the same applies in this Section).	・See Annex 3 for a summary chart of the framework.
(2) Utilization of Framework	・When using Client Additional Margin, the Clearing Broker shall give JSCC an advance notification of the Customer subject to the utilization and other required information.	・In addition to the Customer subject to Client Additional Margin, information, such as a rate of increase, the effect that the Clearing Broker and the Customer have agreed to the utilization of the Client Additional Margin framework, shall be submitted.
	・Based on such notification, JSCC will increase the Initial Margin requirement for the relevant Customer.	・The Initial Margin requirement add-on through Client Additional Margin shall apply *mutatis mutandis* in the calculation of Initial Margin requirement equivalent related to Intraday Margin and Margin Required to Clear. ・When the relevant Customer has been subject to other add-on measures in the Initial Margin requirement calculation, the add-on amount under such measures and the add-on amount under Client Additional Margin shall be aggregated.

Item	Description	Remarks
(3) Contribution to IRS Clearing Fund Requirement	・When, as a result of a Clearing Broker's utilization of Client Additional Margin, the sum of the Risk Amount Exceeding Collateral of top 2 Clearing Participants decreases, the Clearing Fund requirement shall be calculated by using the amount obtained by subtracting the amount (hereinafter referred to as "Allocated Decrease") equal to all or a part of the amount of such decrease (hereinafter referred to as "Total Decrease") from Expected Stressed Loss Share (calculated on an assumption that no Customer is using Client Additional Margin) applicable to the Clearing Participants falling under both of the below cases (hereinafter referred to as the "Subject Participant"), as the Expected Stressed Loss Share: (See Annex 4) ✓ When Initial Margin add-on related to a Customer of the relevant Clearing Broker is effective by the utilization of Client Additional Margin; and ✓ When it falls under top 2 Clearing Participants in term of the Risk Amount Exceeding Collateral (amount obtained on an assumption that no Customer is using Client Additional Margin). ・JSCC may change the Expected Stressed Loss Share after such reduction on an ad hoc basis, when deemed necessary.	・The greater of (i) the Expected Stressed Loss Share applicable to each Clearing Participant and (ii) 0.1bil yen shall be the IRS Clearing Fund requirement for the relevant Clearing Participant. ・The Allocated Decrease for each Subject Participant shall be smaller of the following: ✓ The amount obtained by prorating the Total Decrease according to the amount of decrease in the Risk Amount Exceeding Collateral of each Subject Participant as a result of a utilization of Client Additional Margin; and ✓ The amount obtained through below formula for each Subject Participant on an assumption that no Customer is using Client Additional Margin: $\text{Expected Stressed Loss Share} \times \frac{\text{Total Initial Margin Requirement related to Customer Accounts using Client Additonal Margin}}{\text{Total Inital Margin Requirements related to House Account and Customer Accounts}}$ See Annex 5 for specific calculation examples

Item	Description	Remarks
3. Addition of External Compression Vendor Used for Vendor-Initiated Compression	・In the Vendor-Initiated Compression to realize compression of cleared trades, the method offered by Quantile Technologies Limited, as an external vendor, will be added.	・ Current Vendor-Initiated Compression uses triReduce offered by TriOptima AB. ・ Vendor-Initiated Compressions offered by TriOpima and those offered by Quantile shall be implemented at different cycles. ・ Compression fee payable to JSCC by the Clearing Participants participating in Quantile's Vendor-Initiated Compression shall be the same as the current Vendor-Initiated Compression fee.
4. Revision of Backload Transaction Submission Window	・In JSCC's IRS Clearing Service, the eligible IRSs submitted for Clearing more than 10 JSCC Business Days after the trade date will be cleared as of the next business day as Backload Transactions, if they are submitted from 4:00p.m. to 8:00p.m. on a JSCC Business Day. JSCC revises the Clearing application submission window subject to the Backload Transactions from 7:00 p.m. to 8:00 p.m. on JSCC Business Day.	・ When applying for Clearing of IRS which comes into effect as a result of Swaption exercise, while the Swaption trade date is treated as the trade date of the relevant IRS rather than the exercise date, if the application for Clearing is submitted at or after 4:00 p.m. on JSCC Business Day, it is cleared as of next JSCC Business Day as Backload Transaction under current JSCC rules. ・ As a result of the revision, IRS which comes into effect as a result of Swaption exercise will be cleared as of the relevant JSCC Business Day when it is submitted for Clearing by 7:00 p.m. on JSCC Business Day.

Item	Description	Remarks
5. Automatic Amendment of IRS Clearing Brokerage Agreement	・As to “Clearing Brokerage Agreement” between a Clearing Broker and a Customer to be executed in the form prescribed by JSCC, when the form is amended after the execution, the relevant agreement shall be revised to the form as amended, and such effect will be provided for in the form of the Clearing Brokerage Agreement.	・ Exhibit Form 3 and Exhibit Form 3-2 of “Handling Procedures of Interest Rate Swap Business Rules” ・ Under the Clearing Brokerage Agreement in the current format, either new Clearing Brokerage Agreement or an amendment needs to be executed between the Clearing Broker and the Customer at each time of an amendment to the form in association with JSCC’s framework revision, in principle. ・ JSCC will notify the details and timing of the form revision to the Clearing Participants at least 1 month prior to the effective date of the revision. Upon receipt of JSCC’s notification, the Clearing Participants shall promptly notify the details to the Customers.
6. Implementation Timing	・Aiming at implementation at 2nd Quarter 2021. (Subject to approval by the Commissioner of the Financial Services Agency.)	

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Conceptual Diagram of Customer Buffer

Annex 1

① Clearing Broker who desires utilization of Customer Buffer framework pre-posts collateral (cash) to Customer Buffer account.

② When a Customer submits a trade for Clearing, if Customer's collateral is insufficient, automatically allocate collateral from Customer Buffer account to the Customer Account. (When collateral is still insufficient after allocation of Customer Buffer, the allocation will not be effected and Clearing request will be rejected.)

③ For the purpose of calculation of excess/deficit in Customer's posted collateral using Initial Margin requirement calculated based on Cleared Contracts as of 7:00p.m., the Customer Buffer allocated to Customer account will be returned to Clearing Broker's Customer Buffer account.

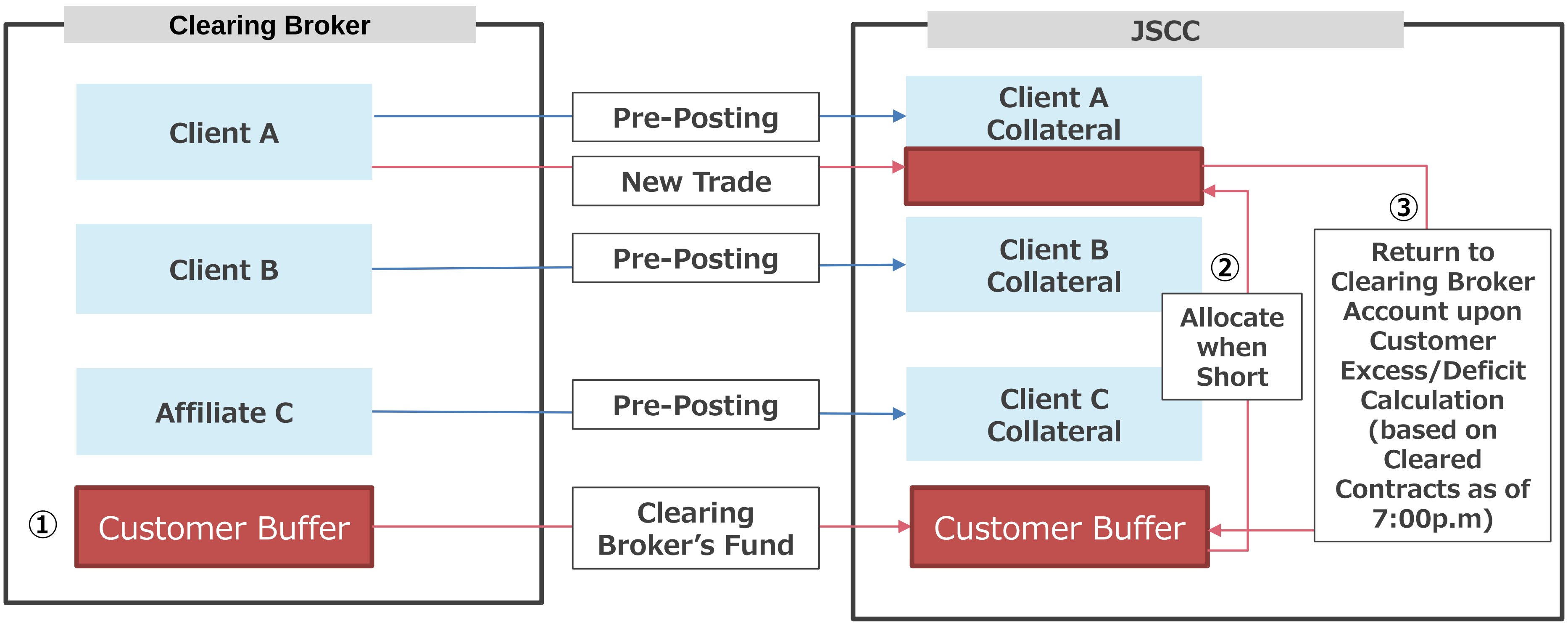
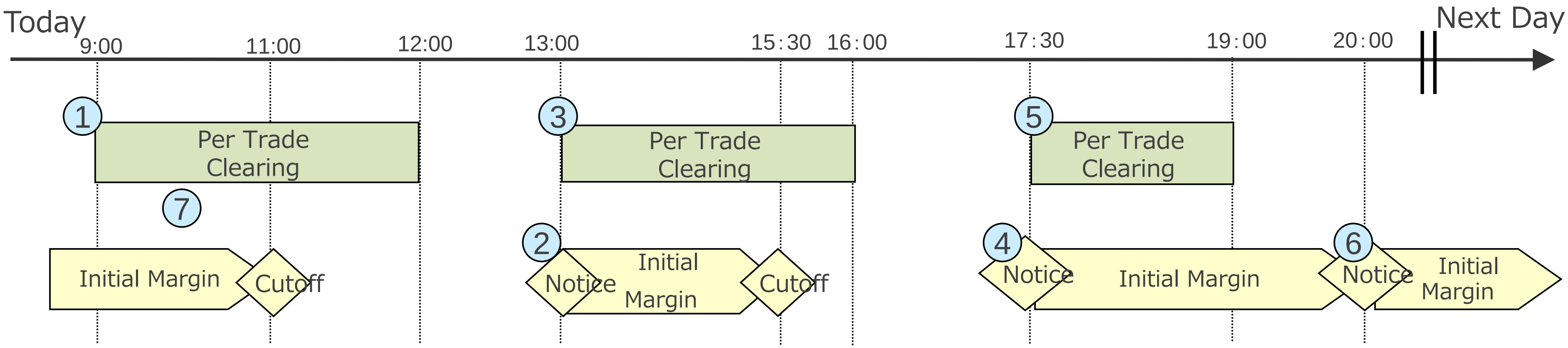


Illustration of Customer Buffer Allocation at each Timing

Annex 2



Hours		May Apply Customer Buffer or Not
1	9:00 - Noon Per Trade Clearing	Customer Buffer to be allocated upon collateral shortfall in Customer account.
2	13:00 Intraday Margin	While Customer Buffer allocated to Customer account still remains, JSCC judges Intraday Margin excess/deficit as of noon, and ask posting if shortfall. (No additional allocation of Customer Buffer to shortfall.)
3	13:00 – 16:00 Per Trade Clearing	Customer Buffer to be allocated upon collateral shortfall in Customer account. Even if posting of shortfall in Intraday Margin is asked at the timing of ②, Customer Buffer is allocated associated with Customer's submission of trade for Clearing and shortfall is resolved.
4	17:30 Initial Margin	While Customer Buffer allocated to Customer account still remains, JSCC judges Initial Margin excess/deficit as of 16:00, and ask posting if shortfall. (No additional allocation of Customer Buffer to shortfall.)
5	17:30 – 19:00 Per Trade Clearing	Customer Buffer to be allocated upon collateral shortfall in Customer account. Even if posting of shortfall in Initial Margin is asked at the timing of ④, Customer Buffer is allocated associated with Customer's submission of trade for Clearing and shortfall is resolved.
6	20:00 Initial Margin	Customer Buffer allocated returns to Clearing Broker's account, and JSCC judges Customer account's Initial Margin excess/deficit without consideration of Customer Buffer and ask posting if shortfall.
7	9:00 – 11:00 Next Day Per Trade Clearing	When posting of Initial Margin shortfall is requested at the timing of ⑥, no Customer Buffer allocation takes place until such shortfall is resolved.

Outlines of Client Additional Margin Framework

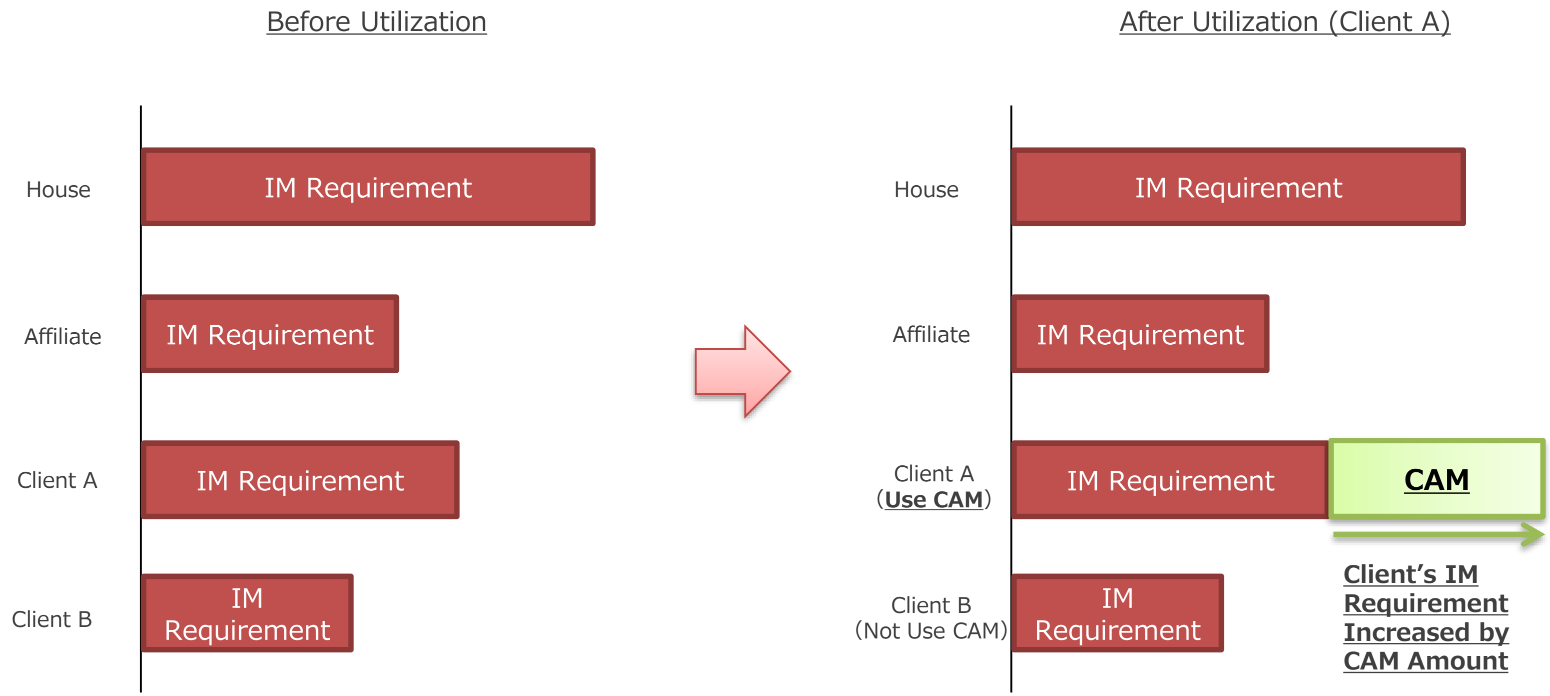
Annex 3

- When an unaffiliated Customer (“Client”) agrees, Initial Margin (“IM”) requirement of the relevant Client will be calculated with a certain level of increase by a multiplier* (Client Additional Margin (CAM)).

- Applied CAM multiplier will be the value agreed between Client and Clearing Broker for each Client.

- Clients (and Clearing Brokers) using the framework are obliged to deposit increased IM requirement by CAM* with JSCC.

* : CAM multiplier will also be applied to calculation of Intraday Margin requiremet, Margin Required to Clear.

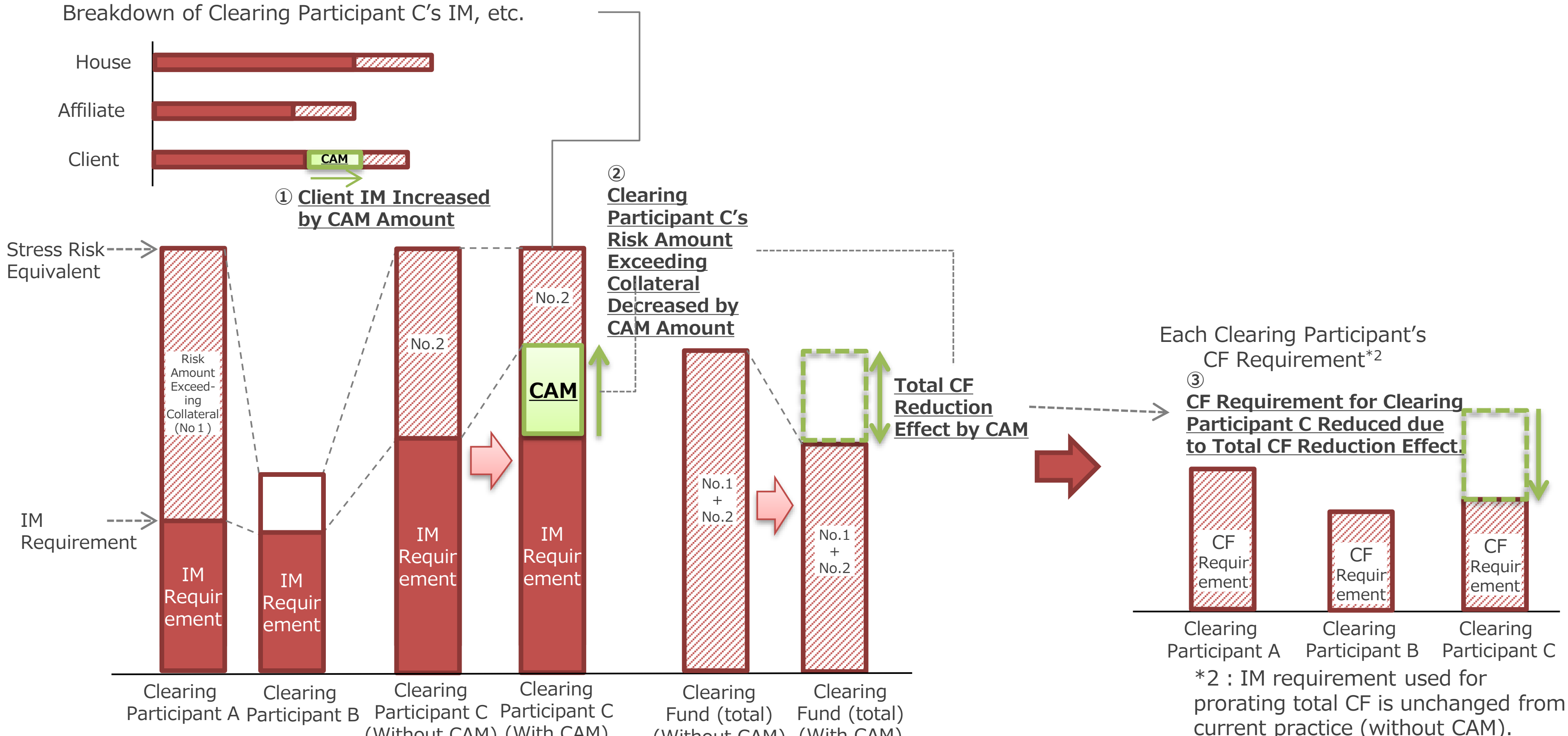


Outlines of Handling of Client Additional Margin for Clearing Fund

Annex 4

- As Client's IM requirement increases through CAM, Risk Amount Exceeding Collateral *1 of the relevant Client decreases, and, as a result, Risk Amount Exceeding Collateral of the Clearing Broker, including the relevant Client's portion, also decreases.
- When the relevant Clearing Broker is one of the top two firms in Risk Amount Exceeding Collateral in calculating Clearing Fund ("CF"), total CF amount will also decrease.
- If total CF decreases, the difference between total CF when CAM applies and total CF without CAM (=total CF decrease due to CAM) will be deducted from Expected Stressed Loss Share ("CF Requirement") of the relevant Clearing Broker (without CAM).

*1 : Risk Amount Exceeding Collateral = Stress Risk Equivalent − IM Requirement



*2 : IM requirement used for prorating total CF is unchanged from current practice (without CAM).

Specific Clearing Fund Calculation Method in Light of Client Additional Margin (1/2)

Annex 5

(1) When Multiple Clearing Brokers are Using CAM

- When multiple Clearing Brokers contribute to decrease in total CF by use of CAM for their Clients, decrease in total CF will be allocated to such multiple Clearing Brokers, and CF requirement for such Clearing Brokers will be reduced by amount so allocated.
- **Allocation to be made by proration according to each Clearing Broker's Reduced Risk Amount Exceeding collateral.**

Clearing Broker*1	Stress Risk Equivalent	IM Requirement (Increase by CAM)	Risk Amount Exceeding Collateral (Decrease by CAM)	Total CF*2 (Decrease by CAM*3)	CF Requirement (Decrease by CAM)
CAM not applied					
Clearing Broker A	700	400	300	500	200
Clearing Broker B	500	300	200		150
Clearing Broker C	350	200	150		100
Clearing Broker D	250	100	150		50
CAM applied					
A (Using CAM)	700	**600 (200)**	**100 (-200)**	**260 (-240)**	**40 (-160)**
B (Using CAM)	500	**400 (100)**	**100 (-100)**		**70 (-80)**
C (Using CAM)	350	240 (40)	110 (-40)		100 (±0) *4
D (Not Using CAM)	250	100	150		50

Proration by Decrease in Risk Amount Exceeding Collateral due to CAM (A200:B100)

*1 : Each of Clearing Brokers A to D has Clients. Stressed Risk Equivalent, IM requirement and/or Risk Amount Exceeding Collateral represents sum of those for house and Clients.
*2 : Sum of Risk Amount Exceeding Collateral for top two firms (Participant A and B when CAM is not applied and Participant C and D when CAM is applied.)
*3 : Decrease due to CAM means difference in total CF with CAM and total CF without CAM
*4 : Though sum of Risk Amount Exceeding Collateral of Clearing Broker C deceases due to CAM, as it is not one of the Risk Amount Exceeding Collateral top two firms in total CF calculation when CAM is not applied, and total CF decrease depends on CAM application by Participant A and B, Clearing Broker C is not subject to reduction of CF requirement.

Specific Clearing Fund Calculation Method in Light of Client Additional Margin (2/2)

(2) Range of CF Requirement Reduction

- Currently, CF requirement for a Clearing Broker is prorated according to aggregated amount of house and Customers IM requirements. Thus, reduction of CF requirement of the relevant Clearing Broker in the amount exceeding the portion attributed to IM requirement of a Client using CAM is considered inappropriate.
- **Therefore, among the amount allocated to CF requirement reduction due to decrease in Risk Amount Exceeding Collateral, actual contribution to CF requirement reduction will not exceed the ratio of the total IM requirement of a Client using CAM (IM not applying CAM) to the total IM requirement of the relevant Clearing Broker, as explained in below formula.**

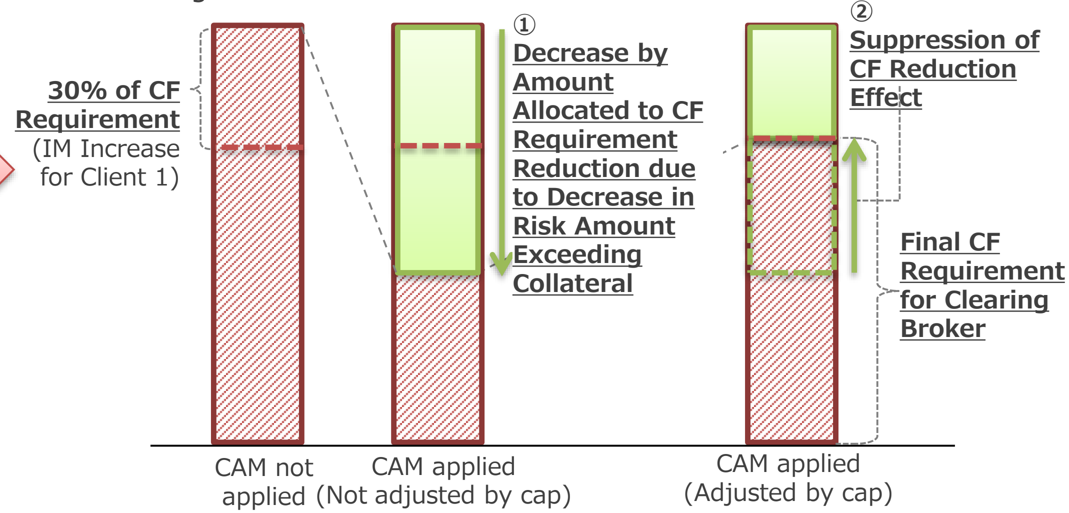
$$\text{Range of Actual CF Reduction} = \text{CF Requirement (Before CAM)} \times \frac{\text{CAM User Clients' Total IM Requirement}^{*1}}{\text{Clearing Broker's Total IM Requirement}^{*1}}$$

*1 : IM requirement not applying CAM

Breakdown of Clearing Broker's Total IM Requirement

	IM Ratio
House	40%
Affiliateト	10%
Client 1 (Using CAM)	**30%**
Client 2 (Not Using CAM)	20%

CF Requirement for Clearing Broker



- Conducting ex-post facto validation from risk management viewpoint, JSCC is allowed to further suppress CF requirement reduction effect, if total CF amount becomes extremely small due to CAM.